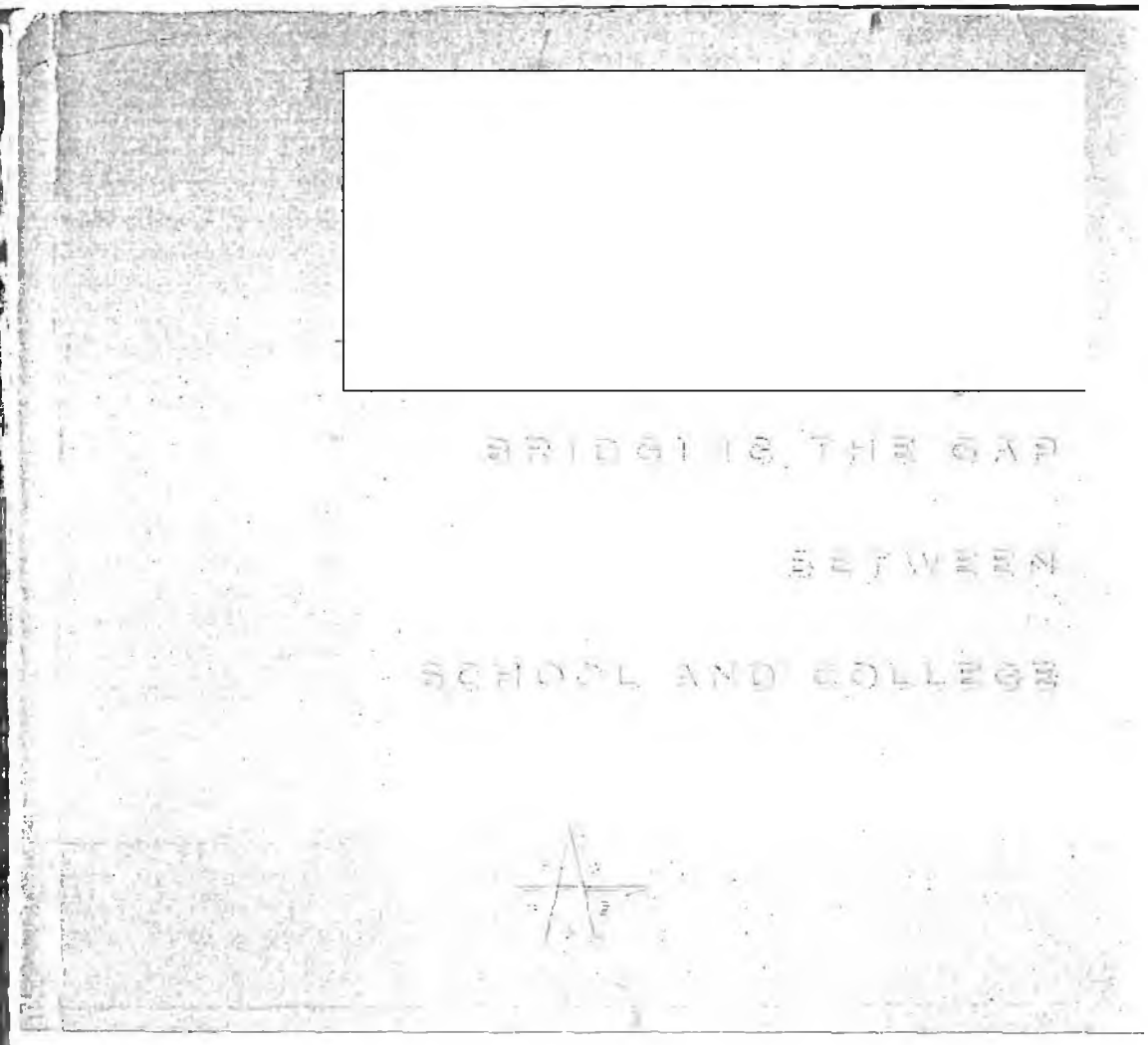

THE FUND FOR THE ADVANCEMENT OF EDUCATION

Established by The Ford Foundation

BRIDGING THE GAP

BETWEEN SCHOOL AND COLLEGE

A Progress Report on Four Related Projects Supported by the Fund for the Advancement of Education, New York,

EVALUATION REPORT NO. 1

June, 1953

Prepared by the Research Division of the Fund for the Advancement of Education, in cooperation with the participants

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PREFACE

A PRIVATE FOUNDATION dedicated to the advancement of education acts as a magnet for good ideas. Within one year after its establishment by the Ford Foundation in April, 1951, the Fund for the Advancement of Education had received requests for grants to support studies, experiments and on-going programs — most of them meritorious — totaling over $300,000,000 or nearly twenty times the Fund's available resources in that period.

To provide a basis for choosing among attractive alternatives and to insure a cumulative impact on important educational problems rather than a random dispersal of effort, the directors and officers of the Fund, after consultation with many experienced and thoughtful persons engaged in education, selected several critical problem areas in American education upon which to concentrate immediate attention. These include: 1) clarification of educational philosophy; 2) clarification of the function of the various parts of the educational system and the improvement of the articulation of these parts; 3) improvement of the prepara-

tion of teachers at all levels of the educational system; 4) improvement of opportunities for education in the Armed Services of the country; and 5) development of financial support for educational institutions.*

A corollary to the Fund's decision to concentrate upon promising experiments and developments within a few vital problem areas was the decision that each project should be closely studied and evaluated as it progressed, so that useful lessons learned could be made generally available. Accordingly, evaluation programs are being developed and carried out by the participants in each project or group of related projects in cooperation with the Research Division of the Fund and where appropriate with outside experts and organizations such as the Educational Testing Service.

The present publication is the first in a series of evaluation reports to be issued by the Fund. It discusses the nature and progress to date of four projects specifically directed at improving articulation between school and college and increasing the efficiency of general education at this level. It is an "interim report of progress" and not a report of final conclusions, because three of the four projects are still in an early stage. Because of the widespread interest in them, however, it has seemed worthwhile to make available at this time a full description of the projects and of their progress to date.

Chapter 1 presents a summary of the problem and the relationship among the four projects. The subsequent chapters provide fuller details on the individual projects.

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* — A discussion of the Fund's overall program is contained in the First Annual Report, available upon request.

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Chapter 1

NEW ATTACKS ON AN OLD PROBLEM

— a Summary

LEADING EDUCATORS have long been concerned about two closely connected defects of the American educational system which undermine quality and impose severe waste. First is the poor articulation among units of the system and the resulting lack of clarity as to each unit's function in relation to the whole. Second is the lack of sufficient flexibility to accommodate the wide differences of ability, interests and maturity that prevail among young people of similar age. These defects, though they occur throughout the educational system, are most prominent and perhaps most serious in the four year period comprising the eleventh through the fourteenth grades, including the troublesome transition from school to college. Their net result is a dulling of student interest in learning, a downgrading of educational results, and a waste of human resources which is far greater today than before the turn of the century when such educators as Dewey and Eliot complained against them. With these considerations in mind, but with no preconceptions as to best solutions, the Fund for the Advancement of Education has given support to a combination of four promising experiments which attack this common problem from different directions.

The Problem

JOHN DEWEY pointed out the defect in articulation as early as 1899 in a lecture on "Waste in Education." "All waste," he said, "is due to isolation. Organization is nothing but getting things into connection with one another, so that they work easily, flexibly and fully. Therefore, in speaking of this question of waste in education, I desire to call your attention to the isolation of the various parts of the school system, to the lack of unity in the administration of education, to the lack of coherence in its studies and methods."[1] "The great problem in education on the administrative side," he went on, "is how to unite these different parts."[2]

President Eliot of Harvard, in an address to the National Educational Association in 1888, criticized the growing length of time required for a young man to graduate from college.[3] He insisted, as an early exponent of "acceleration," that ways must be found to save time, not just for the unusually bright student but the average one as well. As things then stood, he noted, ". . . the average college graduate who fits himself well for any one of the learned professions, including teaching, can hardly begin to support himself before he is twenty-seven years old."

More than twenty years later Eliot's successor at Harvard, President Lowell, was still fighting the same battle. "Disease and death are not postponed because a man starts upon a practice of his profession a year or two later than necessary. His period of active life, his achievements, and his usefulness are simply curtailed to that extent."[4] Citing statistical evidence, Lowell observed

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[1] Dewey, *The School and Society*, University of Chicago Press, 1899, p. 78.
[2] *Ibid.*, p. 84.
[3] Eliot, C. W., *Educational Reform: Essays & Addresses*, New York Century Company, 1898, pp. 151, 152.
[4] Lowell, A. L., *At War With Academic Traditions in America*, Harvard University Press, 1934, pp. 255, 256.

that men coming to college younger had a better average record, both in studies and in conduct. A student is likely to get more from college if he comes younger, Lowell asserted: "Much has been said about maturity, but that is the result less of age than of environment and responsibility. Maturity may easily become over-ripe." Lowell's observations may need to be qualified somewhat in the light of recent academic experience with veterans under the G.I. Bill of Rights, but the essential point of his argument, namely that students should be allowed to progress as rapidly as their capabilities will permit, has lost none of its validity. As Sidney L. Pressey pointed out, the veteran presents a special case, whose bearing on the general problem of age and academic success can be determined only by careful study. "Because the veteran of twenty-three does better freshman work than the boy of eighteen straight from high school," he argued, "one cannot conclude that the boy should not have entered college until he was twenty-three, or even that he would have done better work if he had delayed entrance till nineteen, or poorer if he had entered at seventeen." Moreover, "a little gain in maturity of college work might be made at a cost of precious time taken from [the student's] adult career."[5]

The haphazard manner in which the American educational system grew helps to explain some of its defects. Charles Judd and John Dale Russell, describing the "inco-ordination" within the system, point out that our kindergarten was first developed in Germany, the elementary school followed a Prussian model, the high school is a unique American product, the college originated in England and the graduate school was imported from Germany. "An educational system made up of units so derived

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[5] Pressey, *Educational Acceleration,* Bureau of Educational Research Monograph No. 31, Ohio State University, 1949, p. 67.

may well be expected to suffer from inco-ordinations between its units, at least until effective efforts have been made to bridge over the junctures."[1]

At the risk of oversimplification, the situation as it stands today can be described by saying that we have developed an educational system of poorly connected parts held together by the principle of the chronological lock step. By custom, and in most communities by regulation as well, children are placed on the starting line at age six, marched along in unison one grade per year, given a relatively standardized academic diet along the way, and finally graduated from high school right on schedule with their age group. Then they either enter the "real world," hopefully prepared to be good citizens and breadwinners, or else continue in the academic lock step through four years of college and perhaps even beyond to the higher-echelon procession of graduate or professional school.

Under this rigid linkage of academic progress to chronological age it is popularly regarded as "abnormal" for a young person to get out of step with his age group, either by falling behind or getting ahead. A folklore of child psychology has grown up which protects the system against heresy. It is implicitly assumed, for example, that there is a "right age" for all young people to enter college, and worried questions are asked about those who break from the lock step and enter early. "Won't this premature exposure to college life impair their morals, their social and emotional development, and perhaps even lead to serious maladjustment? Won't they be deprived of opportunities to develop leadership capacities within their own age group? Even if they are bright and can earn good grades, are their minds ready to

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[1] Judd and Russell, *The American Educational System*, Houghton Mifflin Co., New York, 1940, p. 229.

profit from college?" Comparable concerns are expressed about the young child who learns to read or play the piano at an "abnormally early age," or conversely is "late" in learning to walk or talk or master certain civilized conventions.

These are not frivolous concerns and they merit serious inquiry, but the truth does not come easily. Such issues have long been vigorously debated, but without adequate facts to go on. If past psychological studies have consistently shown any one thing that offers a guide and warrants a skeptical attitude, however, it is that the rate of progress toward maturity varies widely among young people and is not rigidly tied to chronological age. Thus the proposition that there is a "right age" to enter college is subject to considerable doubt.

The doubt is underscored by the findings of Professor Pressey's recent comprehensive review of acceleration studies and experiments. ". . . over the past 30 years," he reports, "a considerable number of carefully controlled studies taking account not simply of academic success but also of health and social adjustment have almost all been favorable in outcome to selective acceleration."[1] Then he notes a striking anomaly. "Though acceleration has long had the approval of many experts and the support of research findings, efforts to shorten curriculums and to facilitate the progress of superior students have made little headway, and now seem almost at a standstill."[2] This discouraging observation perhaps illuminates another important dimension of the problem — the familiar difficulty of effecting change, however badly needed, in any well-established pattern of institutions and practices.

These various considerations suggest the futility of seeking any panacea for a problem which is essentially very complex. The

[1] Pressey, *op. cit.*, p. 18.
[2] *Ibid.*, p. 27.

problem itself may perhaps be summed up in the following terms, as a basis for considering various approaches to its solution.

Ideally the education of an individual, viewed as a whole, should be a continuous and efficient process. Whether he gets his entire formal education on one end of a log with a Mark Hopkins on the other, or under a single schoolhouse roof, or in a succession of institutions, his learning process should go on smoothly, unmarred by wasteful repetitions, gaps and disruptions. Ideally also, every young citizen of a democracy should be enabled and challenged to move along at his own best educational pace and at all times to perform up to his own full potential, emerging from the formal educational system eager and able to continue his education on his own. The United States has made tremendous progress in the direction of making education universally available, but we are still falling far short of the ideal of making education as rich, as continuous and as efficient as possible for each individual.

Specifically, in the phase under main consideration here — the period roughly from the 11th through the 14th grades — the following shortcomings seem evident. First, a large majority of our high schools are not flexible enough to enable and challenge each student to move along at his own best pace, and in many cases are not giving students an adequate preparation for college. Second, there is poor articulation between high school and college, which imposes wasteful repetitions and discontinuities on the educational process. Third, the programs of most colleges are not flexible enough to allow for wide individual differences of aptitude and preparation among entering students. The "underprepared" student must use valuable time in college remedying deficiencies in his high school preparation, while the "over-prepared" student wastes college time duplicating educational experiences he has already had. And perhaps most serious of all, the

abler student whose abilities have not been sufficiently challenged in either high school or college may have his interest in learning dampened if not destroyed.

To say these things is not to engage in carping criticism of the schools and colleges, for they are often their own severest critics in these matters and they face serious handicaps in attempting to improve the situation. As the high schools see the problem, it is largely one of providing the best education they can within the limited means available to an ever expanding mass of students who not only vary widely in personal characteristics but who are heading toward different careers. A large majority are not exceptionally endowed, and a large though rapidly decreasing majority are not going on to college. Faced with a heavy and proper responsibility toward these majorities, and cramped in teaching staff and budget, the high schools are understandably unhappy about their failure to do as much as they might for the exceptionally endowed and the college-bound student (the two not necessarily being the same). The high schools also make the point with some force that it has never been made quite clear to them just what comprises "an adequate preparation" for college, apparently because the colleges themselves are not altogether sure.

Seen from the vantage point of the colleges, the problem is largely one of devising, again within limited economic means, a freshman and sophomore program that will accommodate entering students of widely varying preparation and aptitude. Almost inevitably the program becomes geared to the needs of the "average," as in high school, again with the abler student the principal victim.

The great issue and challenge here is whether our schools and colleges, working together and within the practical economic limits imposed upon them, can devise means for making the

democratic ideal of universal education compatible in practice with the equally important democratic ideal of giving each individual the opportunity to obtain on an efficient basis the richest possible education.

The procedures that the automobile industry has developed to hold down costs by pushing thousands of cars of identical design through the same production line are not adaptable to education, at least not in a democracy which depends for its fruition and survival upon the cultivation and free exercise of varying individual abilities. An educational system that fails in this respect is a hazard to a democracy, and especially to a democratic nation that has had recently thrust upon it heavy burdens of world leadership for which it is not completely prepared. A broad enough base to prepare a competent citizenry, and high enough quality standards to produce effective leadership, is the dual requirement and the imperative demand upon the American educational system.

Approaches to Solution

IF THE FOREGOING statement of the problem is valid, then it appears that solutions must be sought along the following broad lines.

First, we need to view the educational process as a whole and to clarify and arrive at broader agreement on the functions of each of its institutional parts so that they are clearly and logically related. Second, we need to re-examine critically the existing curricular and other arrangements and wherever necessary alter them to insure a more effective articulation between successive educational stages. Finally, we need to find economical and effective ways to incorporate greater flexibility in our educational system to accommodate the widely differing needs and capabilities of individual students and to promote rather than discourage their interest in learning.

It was with these general objectives in mind that the Fund for the Advancement of Education agreed to support the four specific projects discussed in this report. These four projects are complementary, yet in some measure they also represent alternative approaches to the same goal. They cannot be separately pigeonholed under the labels of "acceleration" and "enrichment" for in fact they involve both. Their common and basic purpose is to improve the efficiency and quality of education, especially from the 11th through the 14th years of schooling, both by providing a richer education during this time period and by accelerating the whole process, especially for more able students. Though their major focus is upon the better-than-average student who is perhaps the most seriously damaged by present shortcomings, the underlying concern and ultimate objective is the improvement of education for all young people.

The School and College Study of General Education

THE FIRST of the projects involved a joint effort by several school and college people to seek out the present weaknesses in curricular arrangements and to devise alternative arrangements that would insure better articulation and less waste between school and college. This project recently culminated in an excellent report that speaks for itself, entitled *General Education in School and College,* published by the Harvard University Press.

This was a joint undertaking by faculty members of three preparatory schools — Andover, Exeter and Lawrenceville — and three universities that receive many of their students from these schools — Harvard, Princeton, and Yale. The broad purpose of the study, in the words of the report, was "to integrate the work of the school and college in the area of general education," or, more precisely, "to plan the last two years of secondary

school and the first two years of college as a continuous process, conceived as a whole." These four years have a certain natural unity for the American student, the Committee believed, and the danger is that this natural unity will be lost in the break at 12th grade between school and college. Their fears were abundantly confirmed by the evidence derived from a close study of the academic records of 344 graduates of the three preparatory schools who had entered the three universities and were seniors in the class of 1951.

This evidence pointed clearly to three major weaknesses in the current pattern of connection between school and college. First was the waste of time and effort involved in doing the same thing twice, in dropping a subject before it had done much good, and in placing undue emphasis upon less important aspects of a subject. The Committee found, for example, that about one-third of the 344 students whose records were studied had repeated in college the beginners' course in physics, chemistry or biology which they had already taken in school. Moreover, the repeaters seemed to have only a negligible advantage over those college students taking the subject for the first time. Commenting on college language requirements that are met and then forgotten the Committee observed: "It is evident that students are spending a lot of time not learning to use a foreign language."

The second weakness found was the existence of important gaps in training and in intellectual experiences. The third was a failure to communicate to students the meaning, purpose, and value of a liberal education.

The Committee did not stop with listing and documenting the weaknesses but went on, with the advice and counsel of many experienced school and college teachers, to design a blueprint for action which readers of its report will find challenging. A large

portion of the report is devoted to a detailed and constructive discussion of curriculum content and sequence. It also includes a definition of a liberally educated person that may well become a classic. One of the Committee's important conclusions was that it should be possible for better students to complete the eight conventional years of high school and college in seven years.

The findings of this Committee, it should be noted, are based on evidence drawn from six atypical institutions and therefore in some respects may seem to have an air of unreality for many school and college readers. Certainly it would be desirable to have similar explorations undertaken with respect to other types of secondary schools and colleges. Nevertheless, the findings of this particular inquiry and its blueprint for action are decidedly relevant to problems universally encountered. It is to be hoped that the Committee's study, the highlights of which are reviewed by the Chairman, Mr. Alan R. Blackmer, in Chapter 2 of the present report, will stimulate constructive discussion among school and college teachers and administrators across the country and will encourage a better articulation among their respective institutions.

A Public School Program for Students of Exceptional Endowment

THE SECOND project supported by the Fund involves the collaboration of the public school system of Portland, Oregon, and faculty members of Reed College on a city-wide program designed to enrich educational opportunities for public school children of exceptional endowment. Acceleration may become an important by-product of this experiment but is not its major aim. Interestingly enough, this project was prompted in part by a study of juvenile delinquency which revealed that a surprising propor-

tion of young people getting into trouble were above average in general competence. The inference was that the school system was not challenging their abilities and not channeling their energies into constructive pursuits.

The Portland project has placed much initial emphasis on developing techniques for identifying the students to whom this program should apply. Those conducting it are not satisfied simply to find the young person of high general intelligence as measured by current tests of aptitude but are seeking out the student who has unusual creative, intellectual, artistic or social capacities, and the emotional and moral qualities necessary for their effective use.

The project also involves development of appropriate methods and materials of instruction for groups and individuals under the program, and the encouragement and training of good teachers. Ways are being sought to coordinate this new program with the common curriculum of the schools and with other educational resources of the community to avoid fixed groupings and segregation, with the intention of enabling other students also to benefit. The active participation of Reed College faculty members is being enlisted in planning, conducting and evaluating the program. The cooperation of other colleges is also being sought, to follow up students from the program, to work out closer articulation of high school and college curricula, and possibly to encourage acceleration at either the high school or college level, or both.

This experiment is far along in its planning phase and is starting to operate in four pilot high schools and ten elementary schools. Fuller details about the project are provided in Chapter 3 of this report, prepared by Karl D. Ernst, its Director.

The School and College Study of Admission with Advanced Standing

THE THIRD project deals with the often asked question of whether students, particularly abler ones, could complete the general education now provided in the last two years of high school and the first two of college in a shorter period of time and yet not lose the essential values of a liberal education. The faculty and administration of Kenyon College asked themselves this question and considered whether they could render an important service to such students by revising some of their requirements for a B.A. degree. As things stand, many colleges permit the better prepared entering student to enroll in "advanced sections" of particular subjects, such as languages, mathematics and natural sciences, usually on the basis of placement tests. Though this may enrich his education and help keep him from getting bored, there are few colleges that allow him to save time toward his degree in this manner. His academic diet may be somewhat improved but he must remain in the four-year lock step, serving his required time and accumulating his required quota of credit hours.

Inquiries by Kenyon revealed wide interest among other colleges and among many high schools in the idea of giving abler high school students the opportunity to take courses equivalent to some now taught in the first year or two of college, with a view to permitting them to leap-frog as much as the whole first year of college by getting credit for this advanced preparation toward a B.A. degree. In short, enrichment in high school would permit acceleration in college. The consequent saving of time, and the equally important nourishment of student interest in learning, would benefit especially those who are going on to graduate and professional study.

A committee of colleges was formed to explore this idea under the leadership of Kenyon's President Chalmers — including Brown, Bowdoin, Carleton, Kenyon, M.I.T., Middlebury, Oberlin, Swarthmore, Wabash, Wesleyan, and Williams. Application was made to the Fund for a grant to support the School and College Study of Admission with Advanced Standing. The committee subsequently enlarged its membership to include twelve headmasters, principals and superintendents, and established close working relations with a selected group of 22 secondary schools. Dr. William H. Cornog took leave of absence from his post as president of the Central High School in Philadelphia to become the committee's executive director.

At present a series of working committees involving the participation of more than 100 school and college teachers and administrators are giving intensive study to eleven subject matter fields on the college freshman level in which high school preparation might be enriched. Another committee is studying the general problem of individual development.

These subject matter working committees will submit their final reports by June, for publication in the fall of 1953. Meanwhile, to identify and iron out practical operating problems, the central committee has authorized pilot studies in seven schools and two colleges during the spring semester of 1953. It is the committee's intention to put their ideas into practice as quickly and fully as feasible.

A fuller discussion of this project, prepared by Dr. Cornog, appears as Chapter 4 of this report.

The Program for Early Admission to College

A SOMEWHAT DIFFERENT approach to the same goal — the goal of saving the student's time while improving the quality of

his education — is represented by the fourth project, the Program for Early Admission to College.

This project was initiated as a pre-induction experiment by four universities — Chicago, Columbia, Wisconsin and Yale — who in 1951 were concerned about the problems raised for education by the manpower demands of the nation's military services. It then appeared that for an indefinite period ahead the general education of many young men would be interrupted by the requirement of military service at or soon after the age of 18. The four universities requested support for an experiment designed to complete the general education of more able and mature young men before they entered military service, by admitting them to college before they had completed high school and enabling them to finish two years of college by the age of 18 to 18½. The announcement of this grant by the Fund evoked widespread interest from other colleges, not simply in this approach to the draft problem but in a broader idea of accelerating the education of young people who had not yet completed high school but who seemed ready, both academically and in personal maturity, to undertake college work. Accordingly, the program was expanded to include eight other colleges — Fisk, Goucher, Lafayette, Louisville, Morehouse, Oberlin, Shimer, and Utah — representing a wide diversity of higher educational institutions.

In the fall of 1951 a total of 420 selected students entered eleven participating institutions under this experiment and another 429 entered twelve institutions in 1952. (Morehouse took in its first group in 1952.) With few exceptions these special students were under 16½ years of age and the majority had completed only the 10th or 11th grade of high school. The big question was: How will these accelerated students do compared to conventional college students, not only in their academic per-

formance but in their social and emotional adjustment to college life?

In an attempt to answer this question the 12 participating colleges, in cooperation with the Research Division of the Fund and the Educational Testing Service in Princeton, have developed an extensive evaluation program. It will involve close study of the full college experience and post-college careers not only of these first two groups of Fund Scholars, but also of two additional groups that will enter college in the fall of 1953 and 1954 under an extension of the program recently agreed to by the Fund and eleven of the twelve participating institutions.

This should provide for the first time the results of a carefully controlled experiment in early admission to college involving a large statistical sample and several cooperating institutions of different types. The evidence obtained should illuminate a number of basic educational policy questions which have long been vigorously debated but without benefit of sufficient facts.

The first phase of the evaluation, covering the first year's experience of the first group of Fund Scholars, has just been completed. Its results are most encouraging, though it would certainly be premature to draw any final judgments on the basis of these early returns. The freshman year academic performance and the social and emotional adjustment of the Fund Scholars in each of the institutions has been compared not only with that of their entering class as a whole but with specially selected "comparison groups" made up of "matching students" of comparable aptitude who differed from the Scholars mainly in having graduated from high school and entered college at a "normal" age. It was important to establish such comparison groups because the Scholars were more carefully selected than the run-of-mine freshman and had higher average aptitude scores.

The results thus far have shown that academically, the experimental students as a group considerably outdistanced the rest of the freshman class. What is more, in a majority of the colleges they also outperformed their comparison groups. There were of course wide variations in academic performance among the Scholars, including some failures, but as a group they did strikingly well.

The question most difficult to answer with objective statistical evidence is: How well did the Fund Scholars adjust emotionally and socially to college life in view of their "tender age"? Under the first phase of the evaluation program evidence was collected concerning extracurricular activities, the seasoned judgments of faculty members and other college observers, the opinions of the students themselves, and the record of withdrawals from college resulting from academic difficulties or other adjustment failures. Again it is well to emphasize that the evidence thus far is very preliminary and certainly not decisive. This evidence on 420 Scholars in their first year suggests over-all, however, that as a group they made at least as successful an adjustment to college life as conventional entering freshmen, including the comparison groups. In extracurricular affairs, athletic as well as non-athletic, they were as active as other students and in some places substantially more so. They earned the respect of their teachers, and with few exceptions the Scholars expressed satisfaction with their own freshman experience and with the program. The picture is not without its dark spots. Some Scholars did not succeed in their first year. But in most of the participating colleges, the proportion of withdrawals due to academic and general adjustment failures was actually somewhat lower for the whole Scholar group than for entering students generally.

Chapter 5 of this report, prepared by the Research Division of the Fund in cooperation with the 12 participating colleges and

the Educational Testing Service, presents a fuller description of this project and its progress to date, along with basic data gathered in the first phase of the evaluation.

Some Broader Questions Raised

THESE FOUR PROJECTS, focused on the same problem from different directions, are interacting upon one another at many points and have already had the considerable effect of mobilizing the attention of many competent school and college people upon vital issues of educational policy. Often these issues extend well beyond the immediate scope of the projects themselves.

The fermenting effect of such projects as these was well demonstrated when representatives of all four were brought together in August, 1952, for a full week of discussion at Aspen, Colorado. More than two dozen participants — college presidents, deans and faculty members, high school principals, a preparatory school teacher, and a public school superintendent — came from all parts of the country, many of them strangers to each other before then, to talk about the Program for Early Admission to College and its relation to the other three projects. Though there were many details to be covered concerning the operation of the projects, the participants chose to spend much of their time discussing larger questions which the projects had provoked and which were of strong mutual concern to all the schools and colleges represented.

Following are some of the questions raised, discussed, but by no means fully answered.

What are the aims and proper content of general education? What is the appropriate division of labor between school and college in providing general education?

What are the basic prerequisites of a college education both academically and in terms of social and emotional maturity? How can a student be effectively tested and appraised on both these counts? How can college selection methods be improved? What kind of student body does the college desire to attract — what range of aptitudes, what balance of urban and rural students, different family income backgrounds, high school and preparatory school graduates, young men and young women?

What is the best timing and sequence for introducing various academic subject matters and methods? How can various subjects such as mathematics, sciences, and languages best be fitted into a general education program and best be taught?

Is there any basic conflict between "acceleration" and "enrichment"? Is there really any difference? If so, is there some proper balance between the two?

To what extent should the "superior" students be segregated to expedite and enrich their education? What are the advantages and disadvantages involved? What other ways of achieving the same results, perhaps with fewer disadvantages, are available?

What responsibilities do the school and college have for developing the "non-academic" side of students? What methods are available and how much practical potential does the college really have in this matter? What is the best relative emphasis on the "academic" and "non-academic" development of a student? Just what is meant by the "whole man" which almost everyone says the school and college should seek to develop? How far should educational institutions attempt to assume developmental responsibilities traditionally exercised by the home and church, though not so adequately of late? How can

the student be made more sensitive to ethical values, either by the curriculum or by other means?

When should specialization begin? How can general education best provide a foundation for technical training? How can impairment of general education by premature encroachment of technical training be avoided?

To what extent are initial career preferences associated with aptitude? How much and in what directions do these preferences change when the student is exposed to liberal education in college?

Why do some students fail in college and others succeed outstandingly? What is the connection between academic failure and social and emotional maladjustment? What can be done to reduce the failures and to encourage a higher proportion of notable successes?

What can be done to achieve greater equality of opportunity for a college education, based on ability rather than financial status? Are colleges doing enough to recruit rural students? In selecting students should the college endeavor to weed out the social "misfits" and the emotionally "maladjusted"? If so, aren't the colleges simply forcing educated people into a mould of social conformity, and incidentally closing opportunities to potentially able people? Is it feasible for the colleges intentionally to select a fair proportion of such people with a view to helping them adjust and grow, though not forcing them into a mould?

Although colleges complain of the poor preparation given students by many high schools, are the colleges really equipped to do justice by a well-prepared student when one arrives? If

acceleration is valid in high school, isn't it equally valid in college?

The very fact that such questions as these are seriously and humbly asked by representatives of important schools and colleges throughout the nation — and that there are few thoughtful people who would pretend to have many of the right answers — is proof enough that there is much room for further experimentation and further improvement in our educational system.

To encourage further experimentation and further improvement, the Fund for the Advancement of Education is supporting such experiments as those described in subsequent chapters of this report.

Chapter 2

THE SCHOOL AND COLLEGE STUDY OF GENERAL EDUCATION[1]

A View of the Problem

THE LAST TWO YEARS of school and the first two years of college appear to have a certain natural unity for the American student. Somewhere between the time his grounding in fundamentals is well advanced and the time he chooses a field of concentration in the later years of college, he receives most of his general education. To be most effective, these four years of education should be planned as a continuous process, conceived as a whole. This is the central thesis of the Committee Report, *General Education in School and College*, recently published by the Harvard University Press.

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[1] This chapter was prepared by Alan R. Blackmer, Chairman of the Committee that undertook the School and College Study of General Education. Mr. Blackmer is Instructor in English at Phillips Academy, Andover. Other Committee members are: Henry W. Bragdon, Instructor in History, The Phillips Exeter Academy; McGeorge Bundy, Associate Professor of Government, Harvard University; E. Harris Harbison, Professor of History, Princeton University; Charles Seymour, Jr., Associate Professor of the History of Art, Yale University; Wendell H. Taylor, Chairman of the Science Department, The Lawrenceville School.

In a country of the size and diversity of the United States, the obstacles to sound integration of school and college are formidable. They stem in part from the unevenness of secondary school preparation. Often the college must spend the greater part of a year in picking up the pieces of a student's fragmented and impoverished secondary education. Conversely, many good schools, both public and private, must carry their ablest boys and girls into "college work," if they are to offer them any real stimulus. Too frequently the result is repetition in college of work well done in school. For well-prepared students this means boredom, loss of intellectual momentum, and serious waste of time in moving towards intellectual and professional objectives.

Most colleges are aware of this problem and, within present limitations, do much to exempt able, well-trained students from elementary requirements and place them in advanced sections. But a major source of difficulty appears to lie deeper, in the relative independence of school and college requirements. The real need is a concerted attempt on the part of both schools and colleges to enable students to move steadily forward through a coherent and unified program of studies, with a continuous desire to learn and at a rate commensurate with their ability. To give impetus to such cooperative effort was the committee's first objective.

The Method and Main Findings of the Study

SPONSORSHIP of this study was undertaken by three schools — Andover, Exeter, and Lawrenceville — and three universities — Harvard, Princeton, and Yale — with an important fact in mind: namely, that a large group of students from these schools go to these universities — 344 in the college graduating class of 1951, for example. This meant that a great deal of evidence about the

transition from school to college was readily available from this body of students. It also meant that while the working committee would be representative of at least three institutions at each level of education, it would still be small enough to be effective.

This study should then be considered, in the first instance, as an inquiry into the relations between programs of study in *these* three schools and the colleges of *these* three universities. We of the committee are aware that there are many schools and colleges to whom our recommendations may seem unrelated to local realities. But we are convinced that the issues are not peculiar to the campuses from which we come, and hope that our conclusions and suggestions may stimulate discussion beyond our limited academic circles.

The committee's attempt to discover the facts about the problem and to devise ways of meeting it included the following activities:

1. A study of the complete academic records, from the eleventh grade through college, of each graduate of the three schools in the class of 1951 at the three colleges.

2. Detailed surveys of how 10 different subjects, such as English or mathematics, are actually taught in the upper years of schools and the first two years of these colleges.

3. A 20-page questionnaire of the essay type to 58 graduates of the three schools in the class of 1952 at the three colleges. These students were all of above-average scholastic aptitude; otherwise they were chosen to represent many fields of concentration and a wide variation in achievement as compared with apparent intellectual capacity. The questions were designed to explore the students' feelings about what was good and what was bad in their school and college experience, what stimuli or hindrances to intellectual growth they had encountered and why.

4. A series of panel discussions with guest consultants on fields of study essential to a liberal education and the relation between school and college in each field. There were 13 such panel discussions and a total of 58 guests.

These investigations confirmed the opinion that the problem was worth serious study. The evidence pointed clearly to three major weaknesses in the current pattern of connection between school and college: 1) waste of time and effort; 2) important gaps in training and in intellectual experience; and 3) failure to communicate to students the meaning, purpose, and value of a liberal education.

Because these specific weaknesses seemed to bear with peculiar force on the superior, or potentially superior student, the committee was particularly concerned with providing him with maximum incentives. This concern was partly the result of our belief that standards can be pulled up from the top more easily than they can be pushed up from the bottom, but it was more the result of a conviction that our frequent failure to extend the able student to the full extent of his abilities is a waste of human resources which the country can ill afford. Indeed, to develop an education suited to the exceptional capacities and needs of our ablest students is one of the nation's most urgent contemporary needs.

The Concept of a Liberal Education

BEFORE ATTACKING the main problems directly, the Committee had first to set down briefly what it meant by a liberal education as a basis for the program of study which follows. In view of the wide agreement today on the essentials of such education, the Committee took its task to be not redefinition of goals, but selection, emphasis, and integration of certain generally-accepted educational ends.

"The liberally-educated man is articulate, both in speech and writing. He has a feel for language, a respect for clarity and directness of expression, and a knowledge of some language other than his own. He is at home in the world of quantity, number,

and measurement. He thinks rationally, logically, objectively, and knows the difference between fact and opinion. When the occasion demands, however, his thought is imaginative and creative rather than logical. He is perceptive, sensitive to form, and affected by beauty. . . . He can use what he knows, with judgment and discrimination. . . . He has convictions, which are reasoned, although he cannot always prove them. He is tolerant about the beliefs of others because he respects sincerity and is not afraid of ideas. He has values, and he can communicate them to others not only by word but by example. His personal standards are high; nothing short of excellence will satisfy him. But service to society or to his God, not personal satisfaction alone, is the purpose of his excelling. Above all, the liberally-educated man is never a type. He is always a unique person, vivid in his distinction from other similarly educated persons."

Furthermore, liberal education and freedom are inseparably bound. "Education designed to free individual human beings from the limitations of ignorance, prejudice, and provincialism makes sense only in a free society and can flourish only within such a society. . . . Liberal education and the democratic ideal are related to each other in a thousand ways. It is not too much to say that they stand and fall together."

A Blueprint for Action

TO HELP PRODUCE such liberally-educated men and to attack the weaknesses disclosed in the area of general education, the Committee proposed a four-point program:

1. An integrated basic program of study which would give the essentials of a liberal education and at the same time sharply reduce waste and duplication in the transition from school to college.

2. Full encouragement to the able student to break out of the academic lock step and push forward at his own pace in fields of special interest and competence.

3. A concerted attempt to explore every device to increase a student's desire to grow in knowledge and understanding, to educate himself.

4. A seven-year program to get the ablest students through secondary school and college a year sooner, to be achieved partly through elimination of waste and partly through allowing the able to progress at a rate commensurate with their ability and maturity.

Each of these proposals will be briefly summarized.

A Basic Program of Study

THE COMMITTEE'S suggested program of study, designed to unify these four years of general education, is based on three main principles.

1. It should include the skills and knowledge that every student should possess, regardless of his tastes, aptitudes, or future life work.

2. It should be flexible enough to be adapted to individual differences, to allow for personal choice and a certain amount of concentration of interest, as early as the 11th grade.

3. The various parts of the program should be organized in intelligible sequences and related explicitly to each other whenever possible.

Its content is organized to give both the skills and the knowledge which, in the judgment of the Committee, should result from the "general" phase of a liberal education. The skills on which

the Committee concentrated are the ability to read intelligently and to write effectively, to listen sensitively and to speak clearly; the ability to reason mathematically; competence in some language other than the mother tongue; and the capacity for logical and objective thinking. Without these skills it is difficult to conceive of anyone's acquiring and continually expanding the knowledge which is considered indispensable to the educated man.

The knowledge thought to be necessary for such a basic four-year program includes three broad areas: the world of nature, the world of human society, and the world of human ideals, aspirations, and values. This knowledge the Committee organized into sequential courses in 1) both physical and biological sciences; 2) American history, the history of Western Civilization, and Contemporary Society; and 3) literature, either the visual arts or music, and the systematic study of values. One chapter of the Report shows why, in the Committee judgment, each area should form part of a basic program of general education and describes what is of first importance in each and how it relates to the whole. Specific recommendations for each area must be left to readers of the full report.

Reduction of Waste

THE WASTE which the investigation found was of three main kinds: doing much the same thing twice; dropping a subject before it has really done much good; and concern with less important aspects of a subject at the expense of the more important. Such waste was doing double damage, most often to the ablest students, in loss of time and loss of interest and momentum. Two illustrations will perhaps suffice to establish the point.

Striking evidence of wasteful duplication appears in the sciences. Of the 344 students whose school and college records we studied, 209 took physics, chemistry, or biology in college. Of

this number, almost half took in college the beginner's course *in the same science they had taken in school.* Many of these were merely fulfilling graduation requirements of their particular school and college. Some were prospective concentrators in engineering or the physical sciences. The very great majority of the latter spent *four years,* two in school and two in college, completing elementary physics and elementary chemistry, *repeating both subjects.* Yet comparison of the grades of the repeaters with those of boys from the same schools who took physics or chemistry for the first time showed that the repeaters had only a very negligible advantage.

If these four years were organized within a single institution, two successive elementary courses in the same subject would not be tolerated. Even in separate institutions, in the Committee view, there is no reason why, instead of repeating physics, for example, in college, the non-scientist should not be required to take a biological science. And the prospective concentrator should not need four full-year courses to complete elementary physics and elementary chemistry. After an introduction to basic principles and the "alphabet of science" in the lower years of school, the student of mathematical and scientific ability could take an intensive one and one-half or two-year school course, say, in chemistry, designed to prepare him for admission to the sophomore college course. Such a program would reduce to *at most three* the four courses now normally required for elementary work.

Evidence of another kind of waste — dropping a study before it has done much good — seems equally clear. For example, although a foreign language dropped early is usually forgotten, neither school nor college seems to have enough conviction about its value to require its mastery. The great majority of the 344 students whose records we examined did not carry any foreign language to the point of real usefulness.

Two out of three failed to take any work in language beyond the minimum college requirement. Four out of five started Latin; only one in five studied it more than two years; only one in 20 took any work in classics in college. Only about one in 10 took a college course in which the emphasis was upon the literature of a foreign language or the study of an alien civilization. The 58 students we questioned in the class of 1952 reported little or no demand for foreign languages in college once requirements were "passed off," and only a handful had a language which they could use. Yet the normal pattern of school study is such that four boys out of five have had five years of school instruction in one foreign language or another, usually two years of one and three of another. Whatever the by-products of this language instruction, it is evident that students are spending a lot of time not learning to use a foreign language.

The problem here is the reverse of avoiding repetition. It is to make certain that a study is carried forward to the point of real usefulness. Therefore, the Committee urges as a minimum requirement in school the thorough and sustained study of *at least* one foreign language. An interested student may, of course, benefit from study of two or more languages, but we believe that it is educationally wasteful to acquire a smattering of two languages instead of competence in one, if such a choice must be made. The Committee strongly recommends that the colleges explore ways of keeping languages learned in school alive in college. This might be done through general education courses in which a language learned in school could be used in the study of the history and literature of a foreign people. Also, readings in a foreign language might be a normal expectation in many existing courses, especially in literature and the social studies.

Progression in Strength

"PROGRESSION IN STRENGTH" in this Report means encouragement of the able student to go forward more rapidly than the average in fields of his particular interest and competence. If in the course of its discussions, one principle more than another came to command the Committee's warmest allegiance, it was this. One of the glories of our society is the value which we attach to human differences and to the right of each person to grow at his own pace and according to his own bent, to achieve his own kind of excellence. Students who find a special intellectual interest early, even when it changes later, are generally the keenest and most purposeful. If breadth of education is insured, a certain emphasis on a field of special interest, even in the years of predominantly "general" education, can give intellectual satisfactions too seldom experienced by American schoolboys and undergraduates. Conversely, preventing able students from moving ahead at their own rate often causes frustration, encourages habits of idleness, and sometimes even creates contempt for academic studies.

It should not prove too difficult for some schools to extend their present limited practice of carrying their better students through freshman level courses and occasionally beyond, in all major fields in which they offer instruction. It may also be feasible to provide students with a variety of outlets for special interests through research projects and tutorial instruction. The real difficulty is to make sure that progress already begun is continued in college through admission into advanced courses. Therefore, the Committee includes in the Report a *specific proposal for an experimental development of valid advanced placement tests from school to college*. Constructed, we hope, under the direction of the College Entrance Examination Board, these would be

offered to all qualified students on a national basis and used, not for admission to college, but for placement, and perhaps college credit, after admission.

Sharpening the Student's Interest

OF SPECIAL INTEREST to the Committee was the difficult problem of student motivation. "We are persuaded," the Report states, "that the greatest single failure which appears from the evidence of our study is a failure to communicate to students the full meaning and purpose of a liberal education. Too many students never know what a liberal education is. Too many more find out only after they have passed unaware and unawakened through the bulk of their years in school and college."

Our interest in the problem of motivation was accompanied by an increasing awareness of its magnitude and complexity, of a scope beyond the resources of the project. Yet we wished nevertheless to set down the following convictions which came from the frank and thoughtful replies to the student questionnaires, confirmed by our own observations and experience.

First, we believe that both school and college should give *top* priority to recruiting and encouraging imaginative, creative teachers. . . . In a sense, all else is peripheral.

Second, we think that the schools should encourage and stimulate more independent work on the part of their ablest seniors.

Third, we hope for a strong and continuing interest on the part of the colleges in finding ways to increase personal contact between college faculties and undergraduates. In our view, the opportunity for "mind to meet with mind" provided by tutorial, seminar, conference and small courses organized within colleges and houses has exceptional educational values.

Lastly, we are persuaded of the soundness of the desire expressed by the students we questioned to be forced to more active, independent, and personal thinking through increased use of papers, discussion, and problem-solving.

This section of the Report concludes: "The problem of motivation is difficult, but we should not dismiss it as insoluble until we have seen what can be done with a tightened, sharpened, and coherent curriculum, taught by first-rate men with an urgent sense of their profession, and organized to encourage students to think, to work on their own, to educate themselves. Such a program, we believe, might command an increased respect for the life of the mind which would be reflected in every area of a student's life."

A Seven-Year Program: Planned Acceleration

PERHAPS THE MOST controversial Committee recommendation is that a way should be opened for certain qualified students to complete the conventional eight years of high school and college in seven. In our view, such a conclusion is hard to escape if we assume that duplication and overlap can be markedly reduced and that opportunity can be given the able student to move at his own speed. Here, however, we can merely summarize our broad position and leave the bulk of the evidence and reasoning to readers of the full Report.

The highly-endowed students with whom we are here concerned are for the most part headed for graduate study. For them the road to special training and to advanced degrees is becoming inordinately long and expensive. The value of such prolonged formal education, often into the late twenties, may be questioned from two points of view, that of society and that of the individual. Shortening the conventional process for some students, by even one year, if it could be done without significant educational loss,

and even possible gain, would add thousands of fruitful professional "man years" of service to the nation's communities. For the individual, it appears doubtful to the Committee that the extra academic education of the able student (extra in the sense that his superior powers have brought him well ahead of his fellows) compensates for the delay in his taking on the adult responsibilities of home, community, and job. Even when staleness and frustration do not result from continuation of education beyond the middle twenties, such lengthy academic life may well impede growth in maturity. Therefore, moving ahead may be more beneficial in every way to able and well-balanced students than staying where they are in the academic lockstep. It goes without saying that such a group would be carefully selected, with emotional stability, good social adjustment, and good health as important as intellectual qualifications.

For boys following this faster schedule, the Committee proposed that the shift from one "class" to another "class" take place at the end of school and the beginning of college, by entering college as a freshman after the third year in school, by entering college as a sophomore after graduation from school, or by some temporary compromise status. If this program were accepted in principle, each institution would work out its own ground rules.

Whatever method might be adopted, "the one principle we should like to see rigidly adhered to is that the essential values of a liberal education shall not be lost or compromised." Merely to lop off a year or two of secondary school, without adequate compensation in the form of an enriched and tightened curriculum, does not, in our judgment, offer promise as a long-range solution of our problems. If a community is not willing or able to support an educational program which can really stretch the top-level student, it is probably best for him to move on to college at the earliest opportunity. Scholarships which make this proce-

dure possible are accomplishing splendid work, but they appear to us to constitute only a sort of "salvage" operation. "To pluck a good student out of a poor school and put him early into a better college is to save the individual but to jeopardize long-range attempts to create a coherent, challenging pattern of general education for the superior student."

"Whatever the immediate fate of the proposal," the Report states, "we are convinced that the pressures we have described, both civilian and military, will sooner or later force consideration of the general problem of acceleration in the high school and college years. When that time comes, we think our schools and colleges will be in a better position to tackle the problem intelligently if they already have some experience with a carefully controlled experimental program on which to base judgment. The immediate argument for such an experiment, however, is its possible benefit to the unusual student."

Summary

IN OVERALL SUMMARY, the program which the Committee proposes is intended to demonstrate the advantages of designing a set of requirements which apply to the years of general education as a whole, not merely to graduation from school or to the first years of college. Problems of balance which seem insoluble in two years of a crowded curriculum, whether in school or college, become easier to solve when the span dealt with is four years and overlapping requirements and repeated courses are eliminated. A high degree of integration can be attained if school and college faculties can be persuaded to look at these years as a unit, as we have tried to do.

Many beneficial results might follow from this kind of integration: the breadth essential to a liberal education and, with it,

some depth; sharp reduction of waste and loss of momentum, particularly in the first two years of college; a clearer consciousness of the meaning of a liberal education through earlier introduction to an intelligible plan of general studies; real challenge to the able student and heightened pride in work well done.

Our dominant concern has been with quality: quality of subject taught, quality of instruction, quality of student. As individuals we are proud of the quantitative achievements of education in America. We believe in the "Jacksonian" ideal of extending the benefits of education as far down the scale of ability as it is possible. But our task in the present study is to emphasize the "Jeffersonian" concept of the right of every able student to the *best* education from which he is capable of profiting.

Our concern for quality extends not only to the student but to what he is taught. We make no secret of our belief that there is a hierarchy of knowledge, that some things are more important for the ablest minds to know than others. Over half of the Report is devoted to the content of our program of studies. We have tried to show why, in our judgment, each study included should form part of a liberal education and the relation of each area to the whole.

Lastly, our whole set of recommendations is designed to raise the standards of college preparatory education throughout the country. The colleges must be relieved of the elementary work they now offer in order to prepare intelligent but poorly-trained students for further education. At the same time, able, well-trained students must be kept from getting bogged down in an introductory college program necessarily designed for the average.

Chapter 3

MEETING THE NEEDS OF EXCEPTIONALLY ENDOWED STUDENTS IN PUBLIC SCHOOLS[1]

THE PRESSING NEED for broadly informed and responsible leadership and for a more adequate supply of specialized talent in many fields makes it imperative that the resources of our abler youth not be wasted. Conservation is of great concern to us as a people but most of our efforts toward its realization are aimed at our natural resources. The most important resources we have are not material but human. The development of distinctive capacities of many students is encouraged by the programs of colleges and universities, including earlier admission of undergraduates. The decisive experience, however, for most students must inevitably be in the public schools.

For years educators have been aware of the problem presented by gifted children. Various efforts have been made in different communities toward its solution. Such efforts have included both acceleration and segregation, but the problem is a complex one and no single plan has yet appeared which might be widely accepted as a satisfactory answer. Historically, public schools in the

[1] This chapter was prepared by Karl D. Ernst, Administrative Director of the Gifted Child Project of the Portland (Oregon) Public School System.

United States are geared to the average student. Little special help has been given to children varying far from the norm. Above-average students have generally been left to shift for themselves. Some of them who possess an inner drive and whose environment has by chance developed motivation rise to the top, but the idea that the genius will emerge in spite of difficulties is probably fallacious.

Along with other educators, Portland teachers have wrestled with this important yet elusive problem. Several years ago Mrs. Idella Watson, a mathematics teacher in Grant High School, became interested in gifted students and sought the cooperation of Reed College. Reed personnel saw possibilities in her suggestion and offered to cooperate through a series of lecture-symposiums for selected high school students. Lectures were given by members of the Reed College faculty in the field of science, social science and literature to approximately seventy-five talented pupils. The lectures were designed to stimulate the academic interest of gifted students of pre-college age. After the first year the plan was extended to include a few students from several other Portland high schools. Although the symposiums covered many topics, they had a common theme, described as "Methods of weighing evidence, analyzing theories and detecting errors in the natural sciences, the social sciences and humanities."

During the years 1951-52, Superintendent Paul A. Rehmus with his staff began a series of informal discussions with members of the Reed College staff in order to explore the possibilities of augmenting this program. These discussions led to the outlining of a joint plan which would include activity on the elementary as well as the secondary level. This plan was then submitted as a memorandum from the Portland Public Schools and Reed College to the Fund for the Advancement of Education for approval

and support. On April 18, 1952, Superintendent Rehmus was notified that the Fund had approved the program as outlined in the memorandum and had appropriated $78,000 to the Portland Public Schools for use during the 1952-53 academic year.

The essential features of the plan as approved were as follows:

1. Provision for many kinds of unusual ability so that the traits and talents selected for identification and for development shall not be limited to general intelligence as currently tested and shall include creative, intellectual, artistic and social capacities, and the emotional and moral qualities necessary for effective use of these capacities.

2. Experimentation with methods and materials of instruction for groups and individuals that will challenge and develop unusual abilities of various kinds, and to this end the encouragement and training of good teachers.

3. Coordination of the teaching and the programs of promising students with the common curriculum of the schools and with other educational resources in the community to avoid fixed grouping, with the intention of enabling other students (and in some measure all students), to profit from the experimentation.

4. Cooperation with other colleges for following up the students from the program and for working out closer articulation of college curricula with those of the high schools, and with possible acceleration at either the high school or college level, or both.

5. Close collaboration with a college of liberal arts and sciences in a strategic position for assisting in shaping and evaluating the program and for actively participating in important aspects of it.

The Portland project is administered by a Liaison Committee composed of two representatives from the public schools, two from Reed College and the administrative director, who as a member of the staff of the superintendent of schools heads the project. Activities are being concentrated in four of the system's nine high

schools and in ten elementary schools. Each school is provided through the Fund with a small amount of released teacher time which is divided among a number of teachers constituting a project committee for that school.

The principal task for the year is the development of procedures of identification. Most previous attempts to identify the gifted have made major or exclusive use of intelligence test scores. Studies of the careers of individuals so identified have shown, however, that outstanding achievement cannot reliably be predicted by this means, and that many without such scores surpass them in accomplishment. Other criteria are needed which in combination with that of general intelligence may prove more successful in identifying those whose potentialities merit special attention. Selection of pupils is made in each school by a teacher committee and is based upon a study of intelligence and achievement test scores, interest finders, check lists, and teacher reports. These testing devices have been grouped in three general areas: (I) intellectual; (II) personality characteristics; and (III) special aptitudes. No student is ever selected permanently. All selections are tentative and students may be added or dropped as further evidence becomes available. At the present time no standard or city-wide norms are being used as a basis for selection. Instead each school after a careful consideration of its resources determines the number of pupils that may be handled in the program. In a general way teachers are this year evaluating the abilities of children on all grade levels, but the concentrated program of identification and statistical analysis is being confined to the fifth and ninth grade levels. Next year the new fifth and ninth grade pupils will be included and within a four year period a complete analysis of the abilities of all pupils, grades four through twelve, will be available.

In the first area the school system's regular program of intelligence and achievement testing is being used as a basis for the screening of pupils. Additional ceiling tests have been given to approximately the top one-third of all fifth and ninth graders in order to give a more complete picture of their intellectual and achievement abilities.

In the second area the identification committee for the project has developed a check list of personality characteristics which are considered to be important in determining the achievement abilities of children. Originally this check list mentioned six general characteristics: drive, self-direction, creativity, curiosity, ability to generalize into new situations, and individualistic performance. Refinements of the original check list have been made on the basis of teacher suggestions and the present one consists of a series of approximately twenty specific personality characteristics. Teachers rate their pupils in reference to these characteristics. All pupils who receive high ratings on these personality characteristics are given careful consideration even though the scores made on intelligence tests might be quite ordinary. In the same way, those who score high on intelligence and achievement tests are given careful consideration even though the ratings on the personal characteristics are quite ordinary.

This rating device is basically one of teacher judgment, which of course is not infallible. It is our intention to check carefully from year to year the correlation of the teacher judgment as expressed on these check lists with the evidence as shown on intelligence and achievement tests. As pupils move through the grades, we will also be interested in comparing the evaluation which different teachers make in terms of these same personality characteristics. In this area it will be necessary to engage in a continuous program of teacher education, aimed toward a better understand-

ing of the nature of the gifted child. The bright child is not always the conforming type of individual who gets along well with his teacher. On the contrary, he may be a problem in the classroom and a consequent threat to the security of the teacher.

The third area for identification is that of special aptitudes. Here we have grouped seven different specialized aptitudes or talents which might not necessarily be discovered through intelligence tests. They include art, music, dramatics, dancing, creative writing, mechanical skill and comprehension, and social leadership. There is very little now available in the way of tests which covers these fields. In order to meet this problem, the identification committee has designated seven sub-committees, one in each of the above-named fields, to study the problem, and to produce tests or criteria which might be used by the classroom teacher in screening for talent. These committees include not only teachers who are specialists in their respective fields but also lay members with specialized interests and abilities. During the first three weeks in January they worked under the general direction of Dr. Robert F. DeHaan of the University of Chicago staff on Human Development, who served as a consultant to the Portland project. Dr. Robert J. Havighurst, chairman of the Department of Human Development of the University of Chicago, will visit our project during the first part of April and continue work with these committees. It is our plan to have specific proposals from each committee ready for use in the schools by the opening of school in September.

Each committee is directing its attention to some particular grade level where there is general agreement that that particular talent might be quite readily discovered. Because talent discovery will center in the elementary grades, our plan is to make the screening instruments in these fields as simple as possible so that they may be applied by the classroom teacher. Such devices will be

made a natural part of the regular curriculum making it possible for pupils to perform freely and easily and without the tension which often accompanies formal tests.

On the elementary level in addition to the development of procedures for identification, groundwork has also been laid for a program designed to meet better the needs of the gifted. A teacher consultant has been spending full time during the year in a regular program of visitation to the ten pilot schools, counseling with principals, coordinators, and classroom teachers. Special meetings have been arranged for interested teachers with various subject matter supervisors who have suggested possibilities of enriching the program within the homeroom. The classroom teachers from two of the schools have arranged informal meetings after school to which they have invited all of the teachers from the remaining pilot schools to meet with them on grade levels and discuss the various techniques they use in meeting the needs of the gifted. Professional meetings in all the pilot schools have centered on this theme. Teachers are showing a healthy interest in the project and there are many evidences of professional growth. Arrangements have been made with the public library to enable selected pupils to borrow certain types of books above the level of children's books. Most of the schools have conducted interest surveys among their pupils and on the basis of the information gained along with that discovered by tests, have established special interest groups in such areas as science, music, art, creative writing, foreign language, dramatics, dancing. These groups meet as clubs once or twice a week. During the second year primary emphasis will shift from identification to evaluation of the needs of the selected pupils and it is evident that this will result in further experimentation which will materially affect the curriculum.

On the high school level a special program for selected juniors and seniors was inaugurated early in the fall. This group of stu-

dents meets during the last period of the day in a class designated as a seminar. Here they have been divided according to their interests and are allowed to work on group and individual projects quite independent of any set curriculum. Their activities during this period are directed by a number of regular teachers who represent the various broad subject matter areas. In addition, staff members of Reed College are available to supplement the instructional program, to plan projects with high school teachers, to give special lectures, and to participate in discussions with the students.

As an example of the group activity in one of these junior-senior seminars, a history project carried on in one school by seven students is cited. A common interest in phases of government led to a review of the study of colonial government and a more intensive study of the Constitutional period of American history with special emphasis on the theories and problems of government at that time. All students read material in Beard's "Rise of American Civilization" and Parrington's "Main Currents of American Thought." As a background for The Federalist, special reports on the biographies of John Jay, James Madison, Thomas Jefferson, and Alexander Hamilton were prepared by the students. Several days were devoted to reading and studying the American Constitution as background material for The Federalist. All the students read The Federalist. Lively group discussions and special reports which were questioned and criticized by the group, resulted in a better understanding of The Federalist and the problems of government in general. Members of the group became interested in the many references made by the authors of The Federalist to Plato's Republic, and decided as a result to delve into Greek history as a background for a later reading of Plato's Republic. Reed College staff members have contributed significantly to this study. Similar projects both of a group and individual nature are under way in other subject areas. Students in the

seminar groups are encouraged to develop good research habits, along with the ability to analyze, think and act creatively, and to carry on effective group discussions.

One of the primary needs to be met during the first year has been in the field of teacher education. Part of the role of Reed College in the project is to administer in cooperation with the Portland Public Schools a teacher education program, making available its resources of plant, library, and personnel for summer workshops and other in-service activities. During the summer of 1952 a workshop was held on the campus of Reed College under the general supervision of Dr. James T. Hamilton, professor of Education. This workshop was attended by 75 member of the Portland Public School staff. Its purposes were threefold:

1. To make specific plans for initiating the program with the beginning of the fall semester.

2. To encourage a preliminary acquaintanceship with the general literature, research, and previous experience in regard to the gifted.

3. To provide a satisfying psychological basis so as to help assure the success of the program during the first year.

Special consultants at the workshop included Dr. Fritz Redl of Wayne University; Dr. Paul B. Diederich of the Educating Testing Service; and Dr. Ernest A. Haggard of the University of Chicago.

During the year, in addition to activities already described, a special class in measurement in education is being offered by Dr. Frederick Courts of the Reed staff through the University of Oregon Extension Division. Each of the pilot schools is represented in the class by a test coordinator and the sequence of class activities is closely related to the testing program now being carried on in relation to the identification program. Dr. Courts acts as a special consultant in the over-all testing program. Another

workshop is being planned for the summer of 1953 with special emphasis on materials and methods of organization within the school system to meet better the needs of the students identified. Teachers will be organized in three different areas: elementary, ninth and tenth grade core, and junior-senior seminar. In the latter area, efforts will be made to relate the work in the student seminar to both the required and elective courses in the last two years of high school in the fields of social studies, mathematics, and science.

Another area of importance during the initial year has been that of interpreting the project to the public. The experiences of other systems in their efforts to meet the needs of the gifted have shown that parents are unusually sensitive to and critical of the method of selection. We recognized early that failure to interpret properly what is being done might early condemn the project in the minds of teachers and the public. One of the workshop committees last summer devoted its full efforts to a study of public relations, suggesting many helpful policies which have guided us during the year. A great many talks followed by periods of discussion have been given by the administrative director assisted by the consultant and various teacher-coordinators to parent-teacher groups, parent study groups, community and professional clubs, and professional staff meetings. It has been our purpose to give basic information and to promote open discussion aimed toward reaching all interested people in the community, and at the same time to avoid the criticism which might be easily incurred by excessive fanfare of a controversial issue of this kind. We feel at the present time that the project has been well accepted by the community as evidenced by the healthy interest shown by parents. Parent criticism has been almost negligible.

As we make plans for subsequent years it is our intention to continue to evaluate and refine our techniques of identification,

giving increasing attention to the application of multiple criteria, including moral, emotional, and social factors which are important to later achievement and social responsibility. We are also concerned with developing a better organization of materials and more effective teaching methods for challenging those of superior ability and encouraging more efficient preparation in both depth and breadth for further study and for later roles in our complex society. Though operating at present in an experimental situation, we are ever mindful of the fact that our aim is to arrive at practical and effective methods of operation which might be achieved by all schools in our own system or by schools in other communities within the framework of possible public support. From the work already accomplished, we are increasingly convinced that in working to increase the opportunities for the gifted child, a kind of teacher growth and development is taking place which actually improves the educational climate for every child in the school.

Chapter 4

ADMISSION TO COLLEGE WITH ADVANCED STANDING[1]

THE PROGRAM for Admission to College with Advanced Standing seeks to enrich and accelerate general education in the 11th through the 14th grades by providing abler students the equivalent of certain college grade work in their later years of high school, thus enabling them to "leap frog" some of the early work in college.

The Program for Early Admission to College, discussed in the next chapter, approaches the same goal from an opposite direction. It seeks to enable promising students who appear ready for the experience to "leap frog" the last year or two of high school and thus get an early start in college.

Under both programs, the aim is to enable and challenge the student to proceed at his own best pace, but under the program discussed here the burden of making this possible is placed on

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[1] This chapter was prepared by William H. Cornog, who is serving as Executive Director of the project on leave from his post as President of the Central High School in Philadelphia.

both the high school and college. Each must make substantial departures from well established routines to permit the individual student to break out of the customary lock step.

Origins and Assumptions of the Experiment

THE SCHOOL AND COLLEGE Study of Admission with Advanced Standing originated in discussions of the faculty of Kenyon College regarding the possibility of revising some of the rules governing requirements for the bachelor's degree in order to enable very able students to save time and yet not lose the essential values of a thorough liberal arts education. President Chalmers of Kenyon described the plan to friends and associates in schools and colleges, and in 1951 a group of twelve institutions formed a Committee on Admission with Advanced Standing. The Committee consisted of administrative heads and representatives of the following institutions: Brown, Bowdoin, Carleton, Haverford, Kenyon, Massachusetts Institute of Technology, Middlebury, Oberlin, Swarthmore, Wabash, Wesleyan, and Williams. At a meeting in the spring of 1952 the college presidents and deans agreed to invite into the Central Committee twelve headmasters, principals, and superintendents, and in May, 1952 the full Committee met to organize what was thenceforth known as the School and College Study of Admission with Advanced Standing.[1]

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[1] The Committee consists of the following: Robert G. Andree, Headmaster, The High School, Brookline, Massachusetts; Samuel T. Arnold, Provost, Brown University; Frank D. Ashburn, Headmaster, Brooks School, North Andover, Massachusetts; James P. Baxter III, President, Williams College; Victor L. Butterfield, President, Wesleyan University; Gordon K. Chalmers, President, Kenyon College (Chairman); William H. Cornog, President, Central High School, Philadelphia (Executive Director); Robert N. Cunningham, Headmaster, St. Louis Country Day School, St. Louis; Burton P. Fowler, Principal, Germantown Friends School, Philadelphia; Stephen A. Freeman, Acting President, Middlebury College; George H. Gilbert, Principal, Lower Merion Senior High School, Ardmore, Pennsylvania;

As is the case with all experiments, the School and College Study began with a series of hypotheses. We made some conjectures about American education and constructed an apparatus to test them, and to search for solutions to the problems derived from our postulates. We assumed 1) the continuity of education in school and college, 2) the virtues of the traditional liberal arts continuum, 3) the mutuality of interest and understanding of school and college teachers in the academic disciplines, 4) the immediacy of the need to revise the timetable and better to utilize the time of the ablest students, and 5) the possibility of describing desirable revisions and means of better utilization in terms of specific subject matter definitions in eleven college freshman course areas.

From these five basic assumptions I would extract the following challenging propositions, to which I think the majority of teachers involved in our study would agree we are committed, or at least committed to the testing thereof:

1. That able students can and should be given more intensive preparation in secondary schools and be allowed to qualify for admission to college at a level higher than freshman entrance in

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Harold B. Gores, Superintendent, Newton Public Schools, Newtonville, Massachusetts; Laurence M. Gould, President, Carleton College; Mitchell Gratwick, Principal, Horace Mann School, New York City; John W. Hallowell, Headmaster, Western Reserve Academy, Hudson, Ohio; James L. Hanley, Superintendent, Department of Public Schools, Providence, Rhode Island; Nathaniel C. Kendrick, Dean, Bowdoin College; Archibald MacIntosh, Vice-President, Haverford College; Morris Meister, Principal, The Bronx High School of Science, New York; Lloyd S. Michael, Superintendent, Evanston Township High School, Evanston, Illinois; John W. Nason, President, Swarthmore College; Frank H. Sparks, President, Wabash College; William E. Stevenson, President, Oberlin College; B. A. Thresher, Director of Admissions, Massachusetts Institute of Technology; and Eugene Youngert, Superintendent, Oak Park and River Forest High School, Oak Park, Illinois.

specific subjects in which evidence can be shown of strong preparation, the equivalent of first-year college work.

2. That committees of school and college teachers can define requirements for admission with advanced standing acceptable to the twelve participating institutions, and broadly applicable in institutions of similar standards and aims throughout the country.

3. That acceleration of able students out of high school after two years or three is generally less desirable than enrichment of the high school curriculum and admission to college with advanced standing at the normal college entering age of seventeen or eighteen.

4. That the advancement of American education demands the strengthening of our secondary schools and particularly of those secondary divisions responsible for college preparation, and that the colleges have an obligation morally to encourage and tangibly to support secondary schools which strive to establish and maintain high standards of academic achievement.

5. That sound learning is respectable and that academic subjects, the content of a liberal arts education, constitute worthy intellectual and spiritual nourishment for young minds, if these disciplines are liberally and wisely taught.

6. That, if procedures for admission of well prepared students to advanced standing in college can be worked out, the best current practices in academic secondary preparation will be supported and their growth and dissemination fostered, the strong secondary school teachers and students made stronger, and the college faculties placed on record in powerful endorsement of the type of liberal arts education in which they and many secondary school faculties believe.

7. That this study stands in opposition to trends in secondary education which have led to the dilution of the high school course, that it opposes these trends not by directing at their advocates insult, ridicule, and indignant complaint, but by holding up a standard of educational excellence to which all schools and colleges of good-will and courage can repair.

8. That, finally, this study reaches beyond parochial considerations of departmental regulations and self-interest or even of college degree requirements; that it may offer a challenge to American education truly commensurate with the dynamism of our culture, the wealth of our resources, and the still unawakened powers of our highly endowed youth.

Progress to Date

TO TEST THESE CONVICTIONS and to pave the way for translating these convictions into action, the Central Committee decided to establish a series of working committees to study intensively eleven subject fields on the college freshman level in which high school preparation might be enriched.

In the course of the summer of 1952 the newly appointed Executive Director, William H. Cornog, President of Central High School, Philadelphia, organized eleven sub-committees of four college and three secondary school teachers each, in the following subjects: English composition, literature, Latin, French, German, Spanish, history, mathematics, biology, chemistry, and physics. (It is significant that of seventy-seven teachers originally invited to committee work only four could not serve, and all four refused only on the basis of prior commitments or impending leaves which prevented acceptance.) The subject committees were charged with the task of defining, (in their respective subjects), the content and standards of achievement of intensive courses in

secondary schools which could be offered to the ablest high school juniors and seniors and for which the twelve colleges could give partial or full first-year credit toward their bachelor's degrees. In addition the Central Committee also established, from its own membership, a Committee on Individual Development which was given the task of examining and defining the student himself and of advising the other sub-committees concerning elements of development not commonly included in the mere acquisition of knowledge.

To insure close contact with the college faculties at every point in the study the college representatives of the Central Committee named correspondents in their institutions in each subject field. The sub-committees have constantly sought the advice of the correspondents and have kept them informed of the progress of committee work.[1]

Our working committees have recognized from the start the many difficulties involved in drawing the blue-prints and specifications by which our principles and propositions may be put to the test of action. But from the beginning our school and college teachers have applied themselves to the problems in their several

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[1] Committees of the study have met and will meet on the following schedule, in Cambridge, Princeton, Boston, New York, and various host colleges: September 10, 1952, Committee on Individual Development; September 26-28, October 3-5, October 10-12, 1952, subject committees; October 30, 1952, Executive Committee and sub-committee chairmen; November 14-16, 21-23, subject committees; December 7, Central Committee; December 18, Executive Committee; January 9-11, 1953, subject committees; February 20-21, February 28-March 1, March 6-8, subject committees; February 28-March 1, Executive Committee, Committee on Individual Development, Sub-Committee Chairmen, Pilot Study directors; March 27-28, April 10-12, April 17-18, April 25-26, May 15-17, subject committees; April 18, Executive Committee; May 2 and June 13, Central Committee.

subjects in the firm conviction that the job can be done and is eminently worth doing. The experience of working together for a coordinated system of school and college teaching has been most rewarding to the participants and an invaluable type of seminar in teacher education.

The subject committees have been encouraged to work toward definitions of requirements which will present a broad range of topics, with many options, in order to give secondary school teachers freedom for imaginative teaching and adventurous planning. The definitions will not, it is hoped, standardize subjects or courses within narrow limits and thus discourage variety in secondary school programs for the gifted.

The definitions are planned to be liberal also in terms of academic achievement expected. The cumulative extracting of the best practices and highest standards of the twelve colleges may result in an unrealistic "premium" type of advanced credit, beyond the normal "high pass" credit given to the regular freshman college student. College departments would not be wise to raise their asking price beyond reasonable limits even though their potential customers are richly endowed. Advanced credit can be priced out of the market.

Moreover, definitions and examinations can never be allowed to be the sole criteria for determining the granting of advanced credit. Much weight must be given to other evidence of unusual ability and valued personal qualities, such evidence as would be found in recommendations from principals, guidance officers, and teachers.

All subject matter committees have been urged to preface their definitions with as full a statement as possible regarding the broad and, it is hoped, liberal objectives of their courses and the relation of these courses to the whole of liberal arts education in school

and college. The committees have been asked also to make specific suggestions concerning teaching methods and approaches to their subjects which would, in their opinion, foster the maturation of the able student. It is above all important, in the judgment of the Central Committee, to encourage and challenge the secondary schools to exercise freedom and a bold use of imagination in their teaching and planning, and to avoid as the plague cram courses for the bright student. Admission with advanced credit should not be gained by rigorous training in jumping hurdles and bounding through hoops, or even by performing high-scoring feats on a very objective trapeze. It is, further, incumbent upon the colleges to consider how they will deal with able students admitted with advanced credit and what options for a continuously enriched education may be opened to such students.

Plans for the Future

COMMITTEE ASSIGNMENTS have involved the active participation of more than a hundred school and college teachers and administrators. So much activity by so many has required that the Central Committee ask the Fund for the Advancement of Education for a grant supplementary to the original grant of $50,000 on the basis of which the study was launched in June, 1952. The Fund has generously given this additional support to complete the work of the study.

In order to anticipate some of the administrative and organizational problems associated with a system of preparatory education for and admission to college with advanced credit, the Central Committee has authorized a series of pilot studies in seven schools and two colleges of the study in the spring semester of 1953. Subject to our receiving a second supplementary grant for these pilot projects from the Fund for the Advancement of Education, seven schools of the study are undertaking to assess the import of ad-

vanced credit programs for their school communities. It is clear from the enthusiasm of all schools who have been reached by communications from this study or by participation in it that the schools are eager to put into action our evolving plans for intensive education of the gifted.

The subject committees of the study will begin submitting their final reports at the May 2 meeting of the Central Committee. All reports will be completed by the June 13 meeting of that committee. The eleven subject committee reports will then be published and in the fall of 1953 will be circulated to the twelve college faculties for consideration. We expect to have approvals late in the fall term. It is anticipated that some schools will begin next fall to introduce courses designed to meet the defined requirements.

Some committees may submit with their reports specimen examinations for the guidance of our colleges. There is general support in the Central Committee for a series of common examinations for advanced credit to be given to admitted candidates during freshman week. No decision has been reached regarding examination procedures. Some committees, and some members of the Central Committee, incline to a certification plan, based upon confidence of the college in the integrity and competence of the secondary school. This system of certification was common a generation ago and persists today in an analogous form in the procedures of granting transfer credit, college to college. If the advanced credit plan proposed by our study attracts the nationwide interest among secondary schools which it seems even now to be attracting, and if more colleges, after reviewing our definitions, wish to accept able and well-trained students on the same basis, it will inevitably be necessary to ask some national testing agency to construct a series of honors or advanced credit exami-

nations. It is plain, however, to all school and college people involved in our study that these examinations, while they may have some objective, multiple-choice elements, must at core be essay-type examinations.

We have no way of knowing with any accuracy how many candidates may be recommended for admission with advanced credit even to the present twelve colleges of the study in the first year of operation. Estimates run from a few hundred to more than a thousand. Estimates are as varied in regard to the percentile rank of eligible candidates in terms of College Board scores or national intelligence tests. Some schools say that two per cent of their seniors could qualify; some say ten or twenty per cent.

The one area of agreement is in the field of finance. Everyone agrees that education of the gifted as they should be educated will cost money. Our only defense there is that education of the handicapped, of the retarded and the slow-learner, also costs money. We believe that the provision of special services for the handicapped are neither to be regarded as merely the discharge of humanitarian obligations nor to be justified by the arguments of sentiment. The handicapped are members of this society of free men and should receive these services as a birthright and for these services this society may not take credit as for some singular or added grace. By the same token, we hold that it is no less democratic to provide special educational services for the gifted. This provision is also their birthright, for democracy has the responsibility to afford opportunity for full personal development to all its citizens, and to each of them in ways and degrees commensurate with the person's endowment and his needs. If this is truly the extent of our society's commitment in education, we face the task of making boards of trustees and boards of education aware of how far short we are falling in meeting that commitment, and

what necessary and expensive steps we all are going to be called upon to take to give our gifted students as full a measure of their educational birthright as we give to their less endowed, and no more than equally deserving, fellows.

The School and College Study will, we hope, afford one means of achieving a balance of opportunity in American education by offering specifications and standards for a more equitable treatment in schools and colleges of a comparatively neglected minority, our ablest students.

Chapter 5

EARLY ADMISSION TO COLLEGE

THE PROGRAM for Early Admission to College got under way in the autumn of 1951 when the first group of 421 Fund Scholars entered the freshmen year at eleven participating colleges and universities.[1] The second group of 429 entered 12 institutions in 1952. These students were selected by the institutions they entered and were granted a two-year scholarship financed by the Fund for the Advancement of Education. With few exceptions they were 16½ years of age or younger at the time of entering college and the large majority had not completed high school.

Recently the Fund made additional grants to the participating colleges to be used, first, for providing necessary financial aid to the first two groups of Scholars in their third and fourth years of college and, second, to help finance two additional groups of Scholars, entering in 1953 and 1954. Thus, barring unforeseen developments, four groups of Scholars numbering well over 1000 in all will have graduated from college under this experiment by 1958. Close observation of their experience compared to that of other college students should provide a better basis than ever

[1] A twelfth participant, Morehouse College at Atlanta, Georgia, did not admit its first group of Scholars until the fall of 1952, and therefore is not included in the statistics on which this report is based.

before for answering some pressing questions of educational policy.

This interim report deals solely with the first year's experience and represents only the first step toward a full scale evaluation. It would obviously be premature and unwise to hazard any final conclusions as yet, but in view of the wide interest shown in the program it was decided to make available as full information as possible on its results to date.

The first year of this program was apparently just as novel and profitable an experience for the colleges concerned as it was for the Fund Scholars. Their faculties and officials, feeling a special responsibility toward these "unorthodox" students, found themselves reexamining the adequacy of various basic policies and practices, including curriculum and teaching methods, with resulting benefits that will probably extend far beyond the immediate scope of the program. In short, the experiment presented an occasion for healthy self-appraisal by the colleges, which in the end could represent one of its most important results.

A considerable body of evidence has been gathered concerning the adjustment of the Scholars to their first year of college, though there are important gaps yet to be filled. For presentation purposes, a distinction has been made between their "academic performance" and their "social and emotional adjustment," but it must be remembered that the two interact considerably. Before reviewing this evidence, it will be well to note the origins of the program, its unique features, how the Scholars were selected, what they were like, and some important characteristics of the academic and non-academic environment to which they were exposed.

Origins and Unique Features of the Program

THIS PROJECT began as a "Pre-Induction Program" involving four universities which were concerned about the problems created for education by the manpower demands of the nation's military services. Under the military draft regulations of early 1951 it appeared that for an indefinite period young men would be drafted at age 18 or shortly thereafter for at least two years of military service, just at the time when they would normally have entered college. This threatened to squeeze general or liberal education at the college level out of the experience of many young men. Discussions of the problem by representatives of four universities — Yale, Chicago, Columbia, and Wisconsin — resulted in a cooperative proposal to the Fund for the establishment of an experimental program of scholarships to enable young men not older than 16½ years to enter college for two years of general education before their military service. The Fund agreed to support this project. Public interest in the plan was revealed by the fact that roughly 2,000 applications were received at the Educational Testing Service at Princeton, New Jersey, for the 200 scholarships available at the four universities.

Announcement of the grant also revealed widespread interest among other educational institutions in the problem of articulation of secondary and collegiate education, and in the idea of admitting promising young people to college before they had completed the conventional high school course as one approach to meeting the problem. Applications to join the program were received from a number of other institutions, and grants were made to eight of them — Oberlin, Goucher, Lafayette, The University of Louisville, Fisk, Morehouse, The University of Utah and Shimer. The program was thus extended to a wide variety of higher edu-

cational institutions, including a co-educational liberal arts college, a women's college, a college specializing in the preparation of engineers, a municipal institution, two Negro institutions, and a state university having unusually close affiliations with high schools of the state.

This expansion, and the liberalization of military draft regulations to permit college students with good academic performance records to complete college before being drafted, soon broadened the focus well beyond the initial pre-induction feature of the program to include its larger experimental aspects. All participating institutions had become keenly concerned over the broad problem of achieving a better articulation between the last two years of high school and the first two years of college, though they retained a lively interest in the more limited pre-induction problem. It was hoped that the lessons learned might benefit not only young men subject to draft but all students entering college.

The program represents the first large scale experiment in early admission to college involving several cooperating institutions and is unique in several other respects.

There have of course been many instances in the past where young people have entered college at an earlier than normal age, sometimes without completing high school, and several studies have been made of such students. But these studies have usually been confined to academic performance, with a *post hoc* statistical analysis of grades received by younger students compared to others. In contrast, the present program has undertaken to study not only academic performance but also the very important question of social and emotional adjustment. The evidence is derived from systematic observation of younger students from the day they enter college. The students under study are not only younger than average entering college freshmen but also have less than

average high school preparation. They are not simply a random collection of individual cases but a carefully selected group whose presence has affected the environment of the colleges they are attending. Their performance is being measured not only against "all other students" but against selected matching groups of regular students presumed to be their intellectual equals. This program embraces not one college but several. It marshals the combined experience and wisdom of their faculties and administrative officers in a search for sound answers to vital educational policy questions. Finally it is not an isolated experiment or statistical study. It is part of a pattern of experiments which approach in concert the basic goal of achieving a better articulation of general education in schools and colleges.

In keeping with the experimental approach, no effort was made to impose uniformity of policies or practices upon the participating colleges and universities. There is in fact wide diversity in such matters as selection standards and procedures, curriculum, social regulations and the like. This will provide an opportunity to analyze and compare results under differing conditions.

Selection of Scholars

EACH INSTITUTION followed its own usual selection procedures, though most exerted additional recruiting efforts, raised their usual admissions standards, employed extra testing procedures for screening, and generally appraised candidates more rigorously than ordinary students, particularly as to their personal maturity and social adaptability. Most applicants who survived the initial screening were interviewed personally by college officials or alumni.

As might be expected, the number of applicants greatly exceeded the number of available scholarships. The major screen-

ing device employed by all institutions was a scholastic aptitude test, coupled in some cases with achievement tests. Six of the institutions used the College Entrance Examination Board (CEEB) "Scholastic Aptitude Tests." The American Council on Education (ACE) "Psychological Examination" was used in eight of the institutions, including four of those who also used the CEEB tests. One institution used the Ohio State Psychological Examination. Achievement tests were used in addition to aptitude tests by six institutions (See Appendix Table I for details). In appraising academic promise, most institutions also gave considerable weight to the applicant's high school record.

Final selection of Scholars took various factors into account, though academic promise and personal maturity were the most important. In all institutions but Shimer, preference was given to applicants with higher aptitude scores, and usually none was considered below a level which had been arbitrarily set somewhat above the institution's customary minimum. Shimer sought to select a representative cross section of students with scholastic aptitude ratings which ranged from well below to well above average.

Where candidates were relatively equal in academic promise and maturity, the institutions tended to determine their selections on marginal factors. Some endeavored to achieve a relatively wide geographical scatter among their Scholars. Most favored high school students over private preparatory school students, other things being equal. Though it was not the intent of this particular program to give special consideration to financially handicapped students, it appears that in practice most of the institutions took financial need into account. Some also considered physical stature and appearance, in an effort to select young students who would not be "conspicuous oddities" on the campus. One institution, reflecting the attitude of most others, said very candidly that it

was anxious not to recruit "simply a bunch of bright young twerps." It was believed that this type of student frequently encounters difficulty in adjusting to college regardless of his age or high school preparation and that it would defeat the purpose of the experiment to load it with young people who were poorly adjusted socially or emotionally. At least one institution, however, challenged this idea of trying to avoid "misfits" in the selection of students, fearing that such a policy might unconsciously degenerate into forcing all college students into a social stereotype.

The experience of the participating institutions strongly suggests that there is still room for advancement among American institutions of higher learning in the techniques of selecting students. By and large the available methods for measuring academic aptitude and promise seem relatively reliable, but the problem of gauging emotional stability and social maturity appears to remain far from solved.

Characteristics of the Scholars Selected

THE SCHOLARS as a group (except at Shimer and to a lesser degree at Chicago) differed markedly from the average of their classmates only in the matter of age, aptitude and amount of secondary school preparation. But they differed widely among themselves in such matters as family background and income, career interests, the type and location of their home community and the like.

The one women's college and four co-educational institutions gave scholarships to women, and in the aggregate 17% of the 420 Scholars were women. (See Appendix Table II.)

The 1951 Fund Scholars ranged in age from less than 14½ to 17 years or more, but more than three-quarters of them were

between 15½ and 16½ years of age.[1] As a group, therefore, they were roughly two years younger than the average for entering college freshmen. (See Appendix Table II.)

Fewer than 10% of the Scholars had finished high school, half had completed eleven grades, and 40% had completed only ten grades. (See Appendix Table II.) Six of the institutions (Fisk, Goucher, Lafayette, Louisville, Shimer and Utah) followed the policy of taking no Scholar who had finished high school, and three (Columbia, Louisville, Utah) took no one who had not completed eleven years of school. Fisk concentrated on tenth graders.

There is wide variation among the Scholars in scholastic aptitude scores, largely within the range above the national average. More than half (245 out of 420) took the CEEB aptitude tests. As shown in Table I, nearly 54% of these Scholars achieved scores on verbal aptitude equal to or above the top 16% of all college applicants in the nation taking this test. On the mathematical section, where the Scholars tended to be stronger, 64% of those taking the CEEB tests had scores equal to or above the top 16% of the national total. Of the 277 Fund Scholars who took the ACE Psychological Test, 40% fitted into the top 10% bracket for the nation as a whole and about 70% did at least as well as the top 30% of the national total.

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[1] An exception was made in the case of the University of Utah where the local school setup is such that it was necessary to raise the age ceiling to 17½ years, though in no case had a Scholar at Utah completed high school.

Table I

COMPARISON OF APTITUDE SCORES OF 1951 FUND SCHOLARS WITH NATIONAL NORMS

A) *CEEB Test of Scholastic Aptitude, Verbal Section*

Scaled Scores	No. Scholars	% Scholars	% Nation-wide
701 & over	27	11.02	2.00
601-700	105	42.86	14.00
501-600	94	38.37	34.00
401-500	16	6.53	34.00
301-400	3	1.22	14.00
300 & lower	0	0.00	2.00
Totals	245	100.00	100.00

B) *CEEB Test of Scholastic Aptitude, Mathematics Section*

Scaled Scores	No. Scholars	% Scholars	% Nation-wide
700 & over	74	30.20	2.00
601-700	84	34.28	14.00
501-600	75	30.61	34.00
401-500	12	4.90	34.00
301-400	0	0.00	14.00
300 & lower	0	0.00	2.00
Totals	245	99.99	100.00

C) *ACE Psychological Examination for College Freshmen, Total Score*

Nation-wide Percentiles	No. Scholars	% Scholars
91-100	111	40.07
81- 90	51	18.41
71- 80	32	11.55
61- 70	19	6.86
51- 60	23	8.30
41- 50	14	5.05
31- 40	14	5.05
21- 30	10	3.61
11- 20	2	.72
0- 10	1	.36
Totals	277	99.98

For details see Appendix Table III

The 1951 Scholars represent a wide geographical distribution, coming from thirty-six states and the District of Columbia, though in a few places such as Louisville and Utah the Scholars were drawn almost entirely from near-by areas. As Table II indicates, 60% of the Scholars came either from the Middle Atlantic or East North Central regions.

Table II

GEOGRAPHIC DISTRIBUTION OF HOME RESIDENCE

Region	No. of Scholars	Percent
Middle Atlantic	176	41.90
East North Central	80	19.05
Mountain	45	10.71
East South Central	36	8.57
New England	28	6.67
South Atlantic	27	6.42
Pacific	16	3.80
West North Central	9	2.14
West South Central	3	.71
Totals	420	99.97

For details see Appendix Table IV

Most of the Scholars were "city boys"; only 7% came from communities with a population under 2500. (See Appendix Table II.) This small number reflects the difficulties encountered by colleges and universities in recruiting from rural areas. The colleges expressed disappointment that they had so few rural Scholars, a deficiency which applies to most of their student bodies as a whole.

Rough evidence is available on family income for 337 of the 1951 Scholars but should not be taken too literally since it represents in some cases the student's best guess rather than accurate

knowledge. The large majority of Scholars (72%) came from middle income families in the $3,000 to $9,000 bracket. About 11% of the family incomes were below $3,000 and about 17% above $9,000.

Table III

ANNUAL FAMILY INCOME OF 1951 FUND SCHOLARS

Income	No. of Families	% of 420 Families	% of 337 Families with Income Reported
$9,000 & over	57	13.57	16.91
$6,000-$8,999	74	17.62	21.96
$3,000-$5,999	169	40.24	50.15
Under $3,000	37	8.81	10.98
Unknown	83	19.76	
Totals	420	100.00	100.00

For details see Appendix Table V

The breadwinning parents of the 1951 Fund Scholars were engaged in a wide range of occupations, as shown in Appendix Table VI. About 42% of them may be classified as "professional" or "semi-professional"; another 30% were in business and banking. A significant number were manual workers, milkmen, postmen and the like.

The parents of the 1951 Scholars as a group have had considerably more education than the national average for adults. Table IV covering the parents of nearly nine-tenths of the 1951 Scholars, indicates that more than 85% have graduated from high school; 55% of the fathers and 36% of the mothers graduated from college and many of these did further graduate work; and in 13% of the cases both parents have a bachelor's degree or higher.

Table IV

EDUCATION OF PARENTS OF 1951 FUND SCHOLARS

Highest Educational Level Completed	No. of Fathers	% of 372 Fathers	No. of Mothers	% of 370 Mothers	Both Parents	% of Parents with Equal Amount of Schooling
Has Bachelor's degree or higher	206	55.38	133	35.94	49	13.17
Graduated from Secondary School but not from College	110	29.57	192	51.89	33	8.87
Did not complete Secondary School	56	15.05	45	12.16	18	4.83
Totals	372	100.00	370	99.99	100	26.87

For additional details, see Appendix Table VII

The 1951 Fund Scholars showed an unusually strong preference for the natural sciences, which appears to correlate with their high proficiency in mathematics. For the 333 Scholars on which information is provided in Appendix Table VIII concerning career preference expressed at the time of entering college, 56% desired to enter a profession relating to the natural sciences whereas only 18% preferred the social sciences and less than 12% the humanities. Only 3% showed a preference for business. Among those who expressed an initial preference as to the academic major they desired to pursue in college, 44% indicated natural sciences, less than 19% social sciences and under 16% humanities. (See Appendix Table IX.) There was some tendency to shift away from natural sciences, however, during the course of the first year in college.

The Academic Programs of the Scholars

THE HEAVY EMPHASIS of the first year was on liberal or general education, except for a few Scholars at Lafayette and Louisville who were permitted to enter engineering programs. There was much variation among the 11 institutions, however, in curriculum, teaching methods, freedom of student choice, opportunity for acceleration, and in the degree to which Scholars were treated differently than regular students.

The majority of colleges made a special point of giving the Scholars the same academic treatment as any other entering freshmen, sometimes to the extent of not identifying Scholars even to faculty members. Where the Scholars were academically segregated or otherwise given different treatment, the purpose was usually to provide them a richer educational experience and higher performance standards than the general student body. There were few cases of special arrangements designed to correct presumed deficiencies resulting from the Scholar's shortened high school career. The colleges consciously avoided "remedial" measures, believing strongly that it was not the intent of the program for the colleges to take over the high school's job.

In six of the institutions — Columbia, Chicago, Louisville, Shimer, Oberlin and Goucher — there was no different academic treatment of Scholars whatever. The same was largely true at Lafayette, except that engineering Scholars were given a special integrated course in mathematics and physics. This was partly to correct the one important deficiency which Lafayette suspected the Scholars might suffer from in a college that emphasizes science and engineering. But it was also because Lafayette desired to develop such a course for all future engineering freshmen (their experience with high school graduates in math and physics having been frequently unsatisfactory in the past) and the Scholars

seemed like an intelligent group to help develop the course. At Yale the Scholars were fully mixed with other freshmen, but all were required to enter the program of Directed Studies with approximately two-thirds as many regular students. It was felt that this would both give the Scholars a better educational opportunity and benefit the Directed Studies program, which began as an experiment in 1945.

A somewhat similar policy was followed at Wisconsin where three-fifths of the Scholars entered the Integrated Liberal Studies program and the others the regular freshman courses. Wisconsin officials reported with some chagrin that the presence of the Scholars may have frightened off conventional students from the I.L.S. program by setting such an enthusiastic pace.

Considerable segregation of Scholars occurred at Utah with the primary aim of giving them an enriched curriculum and more challenging standards. Two new courses, in social science and mathematics, were set up especially for this group, and special advanced sections of three regular courses were reserved exclusively for Fund Scholars. A sixth course combined half Scholars and half regular freshmen.

The only case of full academic segregation was at Fisk where all Scholars (and only Scholars) were enrolled in a newly established "Basic College" with an entirely new curriculum and separate faculty. This new college had been planned for some time and was put into operation one year ahead of schedule, with a richer curriculum and higher standards than the regular college, to meet the problem presented by the considerably superior academic ability of the Scholar group compared to the regular students.

In most of the colleges, with Goucher and Oberlin as notable exceptions, the Scholars, along with other entering students, had relatively little freedom of choice in selection of courses. Typically

they took prescribed courses in the social sciences, natural sciences, mathematics, and humanities, often with a foreign language as well. It is interesting to find that several of the colleges offer "integrated" courses, frequently in a two or three year sequence, cutting across the traditional jurisdictional boundaries of related academic disciplines. The majority also place emphasis on English composition.

In most of the institutions there is some measure of flexibility in the placement of students in elementary or advanced courses and sections, especially in mathematics and foreign languages, which affords at least limited opportunity for acceleration by the well prepared or more competent student. On the whole, however, few of the institutions had a genuine acceleration system. Their curricula are organized on the premise that virtually every student should spend four years accumulating a minimum quota of course credits to earn a bachelor's degree. Chicago and Shimer, the notable exceptions, have a highly flexible system which accepts students with varying amounts of high school preparation and permits wide variation in the rate of speed through college. The College at Chicago:

> ". . . admits students who have completed two or more years of high school. It places students in its curriculum on the basis of tests which determine the nature and extent of their knowledge and competence at the time they enter. It measures the achievement of students by comprehensive examinations rather than by adding up credits earned in separate courses. In recognition of their abilities and needs, it permits the students to proceed at different rates, and is more concerned with actual accomplishment than with the length of time students have spent in the classroom."

Similar arrangements prevail at Shimer where:

> "the curriculum consists of an integrated series of prescribed general courses in the principal fields of knowledge. Emphasis is placed upon

methods of learning rather than on individual facts to be learned. The ability to analyze, and to formulate and express ideas, is developed through independent source reading and through small classroom discussion groups. Fourteen courses comprise the college curriculum."

Columbia employs a system of placement and achievement tests by means of which a student may move on to more advanced work, but without receiving point credit toward the degree.

Four of the institutions — Chicago, Louisville, Shimer and Utah — have had considerable past experience in admitting younger students who have completed fewer than 12 years of previous schooling, and by means of examinations placing them in college work commensurate with their achievement and aptitude.

Non-Academic Arrangements for Scholars

THE PARTICIPATING INSTITUTIONS were keenly aware of the importance of "non-academic" environmental factors to the successful adjustment of the Fund Scholars to college life. Thus careful thought was given to such matters as living and eating arrangements, opportunities for participation in social and athletic activities, and provisions for adequate counselling services. Although there was considerable variation in how the different institutions met these problems, in most places Scholars were treated as all other freshmen in virtually every respect.

By and large, Scholars everywhere were permitted and encouraged to participate in regular extra-curricular activities, including sports. In most places they were subjected to the same social regulations as other freshmen, though because of their age they were generally discouraged or prohibited from joining fraternities.

In seven of the colleges — Chicago, Columbia, Goucher, Lafayette, Oberlin, Shimer, and Yale — all or most of the 1951

Fund Scholars lived in regular dormitories and shared usual eating facilities. In a few cases, Scholars were coupled as roommates. At Louisville and Utah the large majority of Scholars lived at home while others were encouraged to live in regular college dormitories, but in all respects they were treated just as other freshmen. At Wisconsin, a shortage of dormitory space made it necessary to place most of the Scholars in rooming houses. The most specialized treatment was given at Fisk where the Scholars lived in separate dormitories. They had their evening meal at the dormitory but the other two meals with the rest of the university. Fisk Scholars were also subjected to considerably stricter social regulations but were permitted to participate in general campus activities.

At all institutions the usual counselling and advisory services were available to individual Scholars and in some cases special provisions were made for them. Academic counselling was available in every case, but there were great differences in the provisions for guidance on personal and social problems. Faculty and dormitory advisers were widely used. A number of colleges placed an assistant dean in special charge of the Scholars, and in at least one case Scholars were unknowingly observed by trained psychologists. In several cases, special reports were written on each Scholar by qualified members of the institution's staff which provide excellent raw material for evaluating the program.

At Chicago, Shimer, Louisville and Utah, the social environment had long been conditioned by the presence of younger students on the campus so that there was less need for concern about the social adjustment of the Scholars.

During the year officials at all institutions paid careful attention to the impact of various social and living arrangements upon

the Scholars and were quick to consider changes of policy wherever the evidence warranted.

The Academic Performance of the 1951 Scholars in Their First Year

SUCCESS IN COLLEGE obviously cannot be measured by academic grades alone, nor can academic performance be entirely divorced from social and emotional adjustment to college life. An effort to appraise the first year of experience under this experimental program may well begin, however, with this basic question: Did the 1951 Fund Scholars succeed academically in their first year of college, despite their comparative youth and their less than normal high school preparation?

This appears to be an easier question on which to gather direct evidence than the question of social and emotional adjustment, yet even here there are numerous complications to be reckoned with and warnings to be sounded. In the first place, the evidence is largely in the form of grades, which have a deceptive appearance of mathematical precision. Yet anyone who has ever graded papers or prepared course grades knows that in the last analysis the grade is simply a quantitative expression of a personal judgment. Weighing a student on the academic scales is not like weighing a truck on the coal yard scales. Nevertheless, academic grades and achievement test scores appear a reasonably satisfactory and certainly the best available yardstick of performance, particularly when applied to a whole group.

Academic grades are only a relative and not an absolute measure of performance and ability. They give a rough measure of how individuals or groups of students stack up against other students. But two students with identical grades in the same course are unlikely to be absolutely equal in ability and achievement.

Also, the same grade may mean something very different in a mathematics course and an English course in the same college, and marking standards differ widely as between colleges. To complicate matters furthers, the eleven institutions that participated in this program last year used several different numerical and alphabetical marking systems. It would be invalid, for these various reasons, to attempt any comparison between the grade performance of Scholars in different institutions. Finally, there is the fact of considerable variation among the Scholars themselves, both in academic competence and in academic achievement. This preliminary report places its emphasis on the performance of the Scholars as a *group,* which for present purposes seems most relevant, but it must be remembered that group "averages" conceal wide and important individual differences. Later reports, based on fuller evidence, will direct more attention to these variations within the group.

Another problem is how to define and measure "academic success." The real question here, of course, is whether the individual student's total life will have been enriched by having entered college at an age earlier than that considered "normal." A shorter range question, but one which is also inherently unanswerable except by inference, is how well these Scholars actually performed in college compared to how well they would have performed had they completed high school and entered college at the "conventional" age. The best we can do is to infer an answer to this basic question by comparing the performance of the Scholars with that of "normal" students. Here we run up against the problem of *what* "normal" students it is both practicable and logical to use for comparison. There is no perfect solution, but with considerable effort and inconvenience on the part of the cooperating institutions it has been possible to make a number of different comparisons, each of which provides some illumination, and a measure of

cross check on the others. In a few months, more extensive and uniform data will be available from all the institutions, but the incomplete evidence presented below is not without interest and significance.

A. *How did the Scholars compare academically to their whole college class?*

It should probably come as no surprise that in all institutions except one the scholarship group outperformed their total class academically. (The exception was Shimer college where, it will be remembered, a conscious effort was made to select Scholars with a wide range of academic aptitudes. In all other institutions scholarships were granted only to applicants having a better than average aptitude rating.) Statistical data are available to support the above generalization from all of the participating colleges except Fisk, where the grades of the Scholars are not comparable with those of freshmen because the Scholars have been in separate classes for their first year. However, Fisk officers have no doubt about the superior performance of the Scholars in comparison with the freshman class as a whole.

Table V compares the year-end "Grade-Point-Averages" of the Scholarship Group and the whole freshman class in ten of the participating institutions. The average grade for the Scholars was in every case higher than for their class as a whole except at Shimer where it was about the same. (At Chicago and Shimer there is no freshman class as such, so the grade average shown is for the total student body.)

Table V

END OF YEAR GRADE POINT AVERAGES: COMPARISON OF SCHOLAR GROUP AND OTHER STUDENTS[1]

Institutions	Total No. scholars	Pt. Value of "C"	Av. GPA of scholars	Av. GPA of Freshmen	1951 Comparison Group Average
Chicago	59	2.00	2.66	2.1[2]	2.50
Columbia	51	8.00	11.06	10.41	10.78
		B = 11.00			
Goucher	19	3.00	3.61	3.19	3.39
Lafayette	30	75.00	76.48	72.44	77.66
Louisville	24[5]	1.00	1.751	1.43	1.71
Oberlin	25	0.00	1.9	1.1	1.6
		B = 3.00			
Shimer[3]	33	2.00	1.75	2.00[2]	n.a.
Utah	40	2.00	2.86	2.35	2.65
Wisconsin	52	1.00	2.298	1.24[4]	1.852
Yale	52	75.00	78.21	76.25	78.45

[1] No data available on Fisk. None available on comparison group for Shimer.

[2] Since Chicago and Shimer have no Freshman class as such, the average given is for the entire student body.

[3] The figures shown for Shimer are: (a) the median GPA for Scholars and (b) the estimated median for all students entering with 10 to 12 years previous schooling.

[4] First semester average for Letters and Sciences freshman class.

[5] Does not include students registered in Schools of Music and Engineering.

For details see Appendix Table X

Another basis for comparison is the percentage of "letter grades" received in courses during 1951-52 by the Scholars and by the whole freshman class, shown in Table VI. In all seven institutions from which data are available for this comparison, the Scholars earned a strikingly higher percentage of "A's" and also a higher percentage of "B's" than their class as a whole. Conversely the Scholars received a notably smaller proportion of "D's" and "E's" than their classmates.

Table VI

PERCENTAGE OF COURSE GRADES RECEIVED BY 1951 FUND SCHOLARS, COMPARISON GROUPS, AND FRESHMAN CLASSES IN NINE INSTITUTIONS

	A's			B's		
Institution	Fund Group	Comp. Group	Fr. Class	Fund Group	Comp. Group	Fr. Class
Chicago	31.3	15.0	n.a.	33.0	32.3	n.a.
Columbia	22.5	18.8	n.a.	53.7	55.3	n.a.
Goucher	12.3	13.3	7.4	43.8	34.3	28.0
Lafayette	20.3	18.9	9.9	24.2	33.7	23.6
Louisville	20.1	21.1	14.2	45.1	38.7	27.9
Oberlin	10.8	14.4	8.0	41.1	37.8	36.8
Utah	29.0	22.0	15.0	43.0	40.0	28.0
Wisconsin	41.8	24.8	13.0*	46.3	37.3	32.0
Yale	11.9	8.8	6.6	45.6	49.1	38.9

	C's			D's and under		
Institution	Fund Group	Comp. Group	Fr. Class	Fund Group	Comp. Group	Fr. Class
Chicago	27.0	40.5	n.a.	8.6	12.3	n.a.
Columbia	20.0	23.5	n.a.	3.8	2.4	n.a.
Goucher	38.0	34.9	45.1	5.9	17.5	19.5
Lafayette	33.4	32.6	34.0	22.1	14.8	33.0
Louisville	24.0	29.5	39.9	10.7	10.7	18.0
Oberlin	42.7	39.0	42.4	5.4	8.8	12.8
Utah	23.0	33.0	39.0	6.0	5.0	17.0
Wisconsin	10.5	32.1	35.0*	1.2	5.8	20.0*
Yale	29.7	32.3	39.5	12.9	9.8	15.0

* Estimated. Exact percentages are not available.

The results of a special analysis at Goucher of the comparative grades of Scholars and other students by main subject matter areas are shown in Table VII. The year-end grades of the Scholar group averaged higher than the freshman class as a whole in all subject matters except humanities, where there were identical averages.

Table VII

ACADEMIC GRADES BY SUBJECT-MATTER AREAS: COMPARISON OF FUND SCHOLARS AND OTHER FRESHMEN AT GOUCHER COLLEGE 1951-1952

Grade Point Average of:

Subject Area	Fund Scholars	Comparison Group	Freshman Class
English & Speech	3.67	3.47	3.18
Foreign Languages	3.48	3.31	3.30
Social Sciences	3.81	3.49	3.21
Biological Sciences	3.33	3.46	2.96
Physical Sciences	3.86	2.70	3.21
Mathematics	3.50	3.25	2.68
Humanities	3.13	3.52	3.13

B. *How did the Scholars compare academically to classmates of comparable aptitude?*

It is not enough to compare the academic performance of the Scholars to that of the freshman class as a whole. A more revealing comparison would be between the Scholars and a selected group of regular students with similar aptitude scores. Accordingly each participating college agreed to establish a "Comparison Group," roughly equal in size to its Scholar Group, made up of regular students individually matched with the Scholars on the basis of aptitude scores at the time of entering college. The regular students, of course, have finished high school and are of normal age for high school graduates. Further refinements, to be discussed later, are being made in these comparison groups but the limited data already available present an interesting picture.

Information is now on hand which permits a comparison of the year-end "grade-point-average" of the Scholar Group and the Comparison Group in nine of the institutions. Off-hand it might be expected that the Comparison Groups would do somewhat better than the Scholars in view of their "advantage" in age and

greater preparation for college. But as Table V shows, just the opposite was the case in seven of the nine institutions.

Similarly the data in Table VI on the percentage of various course grades received shows the Scholars ahead of the Comparison Group in the majority of cases. For the nine institutions covered, the Scholars received more "A's" than the Comparison Group in six colleges, more "B's" in six colleges and more "A's" and "B's" combined in seven of the nine institutions.

A comparison of the average grades of the Scholar Group and the Comparison Group at Goucher, broken down by subject matter areas, is shown in Table VII. The Scholars outperformed the Comparison Group in English and speech, foreign languages, social sciences, physical sciences and mathematics, but they had a lower average in biological sciences and humanities. A similar comparison is not yet available for the other institutions.

The superior performance by the Scholars in this large majority of cases raises perplexing questions. It seems unlikely that the results can be explained away simply on the statistical grounds that the sample is too small or that aptitude test scores may be erroneous in individual cases. Two more plausible explanations have been suggested, and there may be others. The first is that the Scholars are perhaps more strongly motivated than many of the matching students because they feel more challenged as members of a select experimental group and because they are anxious to keep their scholarships. The other is that aptitude scores, according to past studies, have a tendency to increase with a young person's age, though not with sufficient uniformity to permit the calculation of a reliable adjustment factor. In other words, a 16 year old Scholar with the same aptitude score as an 18 year old may in fact have a higher "real aptitude," and when he reaches 18 will have a higher score.

To allow for these two factors, the colleges were asked wherever possible to select matching students from among other scholarship recipients in the freshman class, in order to minimize differences in motivation, and to pick them with slightly higher aptitude scores than the corresponding Scholars. These procedures have been followed by several institutions in selecting their comparison groups, yet for some unexplained reason the Scholars do better in the majority of instances.

By the end of the present academic year more refined and complete data will be available on Scholars and comparison groups, for both the 1951 and 1952 entering classes, and this will provide a sounder basis for drawing conclusions. Meantime those who believe that certain students will not only do as well but actually better by entering college ahead of the normal schedule can find much comfort in the foregoing data. It may well be that this fact — if it is a fact — accounts for the better academic record of the Scholars than the Comparison Groups in the majority of cases.

C. *How did the Scholars themselves vary in academic performance?*

It was noted earlier that the Scholars differed among themselves in such factors as aptitude scores, age, number of years in high school, sex, parental education and income, and in other respects. One naturally wonders whether these factors made any difference in the academic performance of the Scholars in their first year at college. Did the women outperform the men, or vice versa? Did academic grades correspond to aptitude scores? Did the older Scholars or those with more high school experience do better than the younger ones or those with less schooling? Did the children of parents with more formal education or with higher incomes do better or worse than those whose parents had less formal education and lower incomes?

The information thus far available is far too meagre to provide meaningful answers to these questions. In a few cases, however, rather interesting results have thus far been shown.

For three of the coeducational institutions a comparison between the year-end grade-point-averages of men and women is shown in Table VIII. At Oberlin and Utah the young women substantially outdistanced the men, whereas at Shimer the young men edged out the women. The size of the sample is as yet much too small, however, to give the fair sex cause for enduring elation.

Table VIII

OVERALL GRADE POINT AVERAGES OF FUND SCHOLARS IN THREE INSTITUTIONS, BY SEX, 1951-1952

Institutions	Oberlin	Shimer	Utah
Pt. Value of "C"....	0.00	2.00	2.00
Men G.P.A.	1.6 (14 cases)	2.1 (19 cases)	2.76 (26 cases)
Women G.P.A.	2.4 (11 cases)	1.75 (15 cases)	2.97 (14 cases)

For details see appendix Table X

There is a somewhat broader statistical base for comparing Scholars according to the number of years of high school completed. In six out of seven institutions the Scholars that completed the eleventh grade did better academically in the first year of college than those that finished only the tenth grade. The small group that completed the twelfth year of high school — so small, it should be emphasized, as to be of doubtful significance — did less well in all four institutions shown than the eleventh grade group, and in three out of four institutions, the 12th graders were outperformed even by the 10th graders. It should certainly not be concluded from this, however, that the less previous schooling a student has the better he does in college!

Table IX

FRESHMAN GRADES OF SCHOLARS BY NUMBER OF YEARS OF PREVIOUS SCHOOLING[1]

Institution	Pt. Value of "C"	10th Grade Ave.	No. 10th Grade Schol.	11th Grade Ave.	No. 11th Grade Schol.	12th Grade Ave.	No. 12th Grade Schol.	Total GPA of Schol.	To No. Sch
Chicago	2.00	2.90	34	2.85	21	2.23	4	2.66	
Columbia	8.00	—	—	11.15	29	10.89	22	11.06	
	B = 11.00								
Goucher	3.00	3.47	11	3.72	8	—	—	3.61	
Lafayette	75.00	75.71	22	78.50	8	—	—	76.48	
Louisville[2]	1.00	—	—	1.751	24	—	—	1.751	
Oberlin	0.00	1.17	15	2.7	9	0.9	1	1.9	
	B = 3.00								
Shimer	2.00	1.75(md)	25	2.1(md)	8	—	—	1.75(md)	
Utah	2.00	—	—	2.86	40	—	—	2.86	
Wisconsin	1.00	2.18	22	2.40	27	1.91	3	2.298	
Yale	75.00	75.30	19	79.80	26	79.18	7	78.21	
Total			148		200		37		38

[1] All figures shown are freshman year grade point averages. Data not available for Fisk. Or Scholars actually completing freshman year are included.

[2] Data on Louisville cover only Scholars in the College of Arts and Sciences, not those in Schoo of Music or Engineering.

For details see Appendix Table X

The Social and Emotional Adjustment of the Scholars to College Life

THE INSTITUTIONS in the Program for Early Admission to College have undertaken to gather several types of evidence concerning the social and emotional adjustment of Fund Scholars. No single type of evidence by itself provides an adequate basis for conclusions, nor are there available any satisfactory devices for achieving a neat statistical measurement of "adjustment." The extreme cases of success and failure are fairly easily identified, but judgment must rest in the large majority of cases upon a careful weighing of several types of evidence.

One type concerns the extent to which the Scholar participates voluntarily in "extra-class" activities, such as organized sports, dramatics, student publications, social clubs and other activities involving group participation and opportunities for leadership. Another is the direct testimony of the student himself. In appraising the Scholar group as a whole it will be useful also to examine the statistics of failure in relation to other students. Finally, perhaps the most important evidence is the seasoned opinion of well trained and experienced members of the college staff who have had an opportunity to observe the student in various situations over a period of time. As more experience is gained in this program it is hoped that the evidence presented below will be considerably augmented and refined.

A. *Participation of Scholars in Extra-Class Activities*

Thus far there is overwhelming evidence that the Scholars in each of the 11 institutions engaged in extra-class activities at least as extensively as their classmates and that the large majority were well assimilated into the social life of the college.

Of the 60 Scholars at *Chicago* all but six engaged in campus activities. Three of the non-participants commuted from their homes in Chicago. Age regulations barred Scholars from fraternities, but 42 Scholars were active in 40 different non-fraternity campus organizations. Two-thirds of the Scholars participated in sports and 30 were members of one or more junior varsity teams. "This record," the Chicago report observed, "surpasses by a wide margin the percentage of participation in sports by the total student population and also the total population of male pre-high school graduates."

A special analysis at *Columbia* showed a close relationship between high school and college activity and leadership in extra-class affairs. Twenty-six of the 51 Scholars at Columbia had

been active in more than four student athletic or non-athletic activities in high school. "Of these 26, half were distinctly recognized as leaders of their (college) class by their activities and in the offices they held. . . . Ten of the 26 who were leaders in high school are engaged in many college activities, and 15 (others) have participated to some extent in one or more groups on campus. Only one has not entered into this phase of college life."

The Scholars at the new Basic College at *Fisk* were encouraged to take advantage of the wide variety of cultural events on the campus and as a group displayed considerable initiative. According to the Fisk report, they formed their own Ford Theatre Guild and "gave a remarkably good performance of Wilde's 'Importance of Being Earnest.' They also performed an Easter play and did two short plays in French during the year. There has been a good deal of interest in athletics among both boys and girls . . .".

At *Goucher* a detailed comparison was made between the extra-class activities of the Scholars and the Comparison Group. Despite their younger age, the Scholars participated as extensively as the "matching" students in non-athletic campus activities and were far more active in athletics. Moreover, three of the nine elective offices of the freshman class were filled by Scholars and only one by the Comparison Group. Only two members of each group failed to participate in any extra-class activity.

All but eight of the 30 Scholars at *Lafayette* participated in one or more non-athletic campus activities and all but 12 in athletics. Two were members of varsity teams; eleven joined fraternities; a dozen became affiliated with one of the social dormitories.

At *Louisville* more than 80% of the students live at home and are not so dependent upon campus activities for social life. The activity record of Scholars was very similar to that of the Comparison Group. Louisville reports: "By the close of the second

semester integration into extra curricular life on the part of the [Scholars] . . . was typical of the general pattern observed for the male students in the freshman class." *Shimer* officials likewise concluded that the Scholars were just as active as other new students and their social adjustment essentially the same.

Scholars at *Utah* participated in such activities as the orchestra and band, debating, the ski team, the student newspaper and student politics. Six joined fraternities. The pressure of academic work, however, caused some to withdraw from such activities later in the year.

Wisconsin officials reported that "On the whole, it would not be easy to find a group as busy in campus activities as these boys." Their athletic record was not distinguished, though one was cox of the freshman crew and a normal number took part in intramural sports. Their performance was more outstanding, however, in such activities as the orchestra and band, dramatics, hiking and the like. Several were on the ILS Council and the Scholars "nearly monopolized the ILS newspaper." Roughly half took part in religious organizations. A group of them formed a new political party and competed for positions in the student government.

All but seven of the 52 Scholars at *Yale* participated in campus activities, including 20 in athletics, 8 in Glee Club and Chorus, 7 in the Political Union and 6 each in the band and radio station.

B. *Opinions of the Scholars*

Only a few of the institutions undertook a systematic survey of Scholar opinion about the program but others reported comments by individual students that seemed representative of general reactions.

Dissatisfaction over the strict social regulations imposed upon Scholars at *Fisk,* for example, was symbolized by the 15 year old

young lady who felt that the ban on dating with junior and senior men was unfair and commented that she "might as well resign herself to becoming an erudite old maid with a Ph.D." The problem of dating received attention elsewhere, even where regulations could not be blamed. Male Scholars urged that in the future scholarships also be granted to girls of the same age because they were having trouble making an impression on older girls. Some of the *Wisconsin* Scholars who showed their age complained that a stigma was attached to being young and bright because girls did not want to be seen in the company of younger males. One proposed giving next year's Scholars a pamphlet on "Fordsmanship" or "How to Conceal Your Age Without Actually Lying About It."

These foregoing reactions can probably be viewed as normal and healthy even if somewhat frustrated. On the latter point, several deans agreed that these younger students presented a less serious disciplinary problem because they found relatively innocent outlets for their youthful exuberance and frustrations, as evidenced by their insignificant role in the "panty-raids" that swept many campuses in 1951-52.

The Scholars at *Goucher,* in response to a questionnaire, gave their opinions on several basic points. All but two said they felt no social handicap as a result of their age; one dissenter said "my only social difficulties were in dating"; the other complained, "I do think that some of the upper classmen have treated us as though we were still youngsters." About half the Scholars felt no academic handicap because of an incomplete high school education. The subjects most frequently mentioned by the half who did feel they had handicaps were mathematics, history, English and Latin. One commented: "It has been no handicap except in mathematics. I think that for some of us it has been a blessing in disguise because we have had to work for our grades for the first time in our lives."

The *Goucher* Scholars were almost unanimous in the view that no special guidance was needed for them beyond that given all freshmen and that they were as well adjusted as others to college life. Questioned on the matter of self-consciousness, one summed up the large majority view by saying, "I have never felt unduly conscious that I was a member of an experimental group; in fact I am always surprised to be reminded of it." The Scholars strongly commended the College's policy of not treating them as a separate group. A few urged the discouragement of embarrassing publicity by outside newspapers about individual Scholars and several recommended that in the future Scholars be assigned non-Scholars as roommates. Goucher officials reported the general impression, based on an examination of questionnaire results, that the Scholars ". . . are well satisfied with the results of the academic year. Whatever failings have appeared they attribute to themselves rather than to the experiment itself or the manner in which it has been conducted."

At *Louisville* the faculty counselor obtained student reactions on a number of points. All but one considered their preparation for college work adequate and stated that they would accept scholarships again under the same circumstances. The one exception had come from a technical school which had no college preparatory course. Most of the Scholars felt that the acceleration and other advantages more than compensated for anything they had missed by not completing high school. All felt they had received ample guidance, and all said they had enjoyed their college work, though some reported difficulties with individual courses. At Louisville and elsewhere, Scholars felt that high schools should award them a diploma upon the satisfactory completion of their first year of college.

C. *The Test of Survival*

Most of the institutions reported that a few Scholars, a decided

minority in each case, encountered serious adjustment difficulties. In an encouraging number of such cases, the difficulties were progressively overcome during the year so that by June a fair measure of adjustment had been achieved. In other cases, however, the student concerned withdrew from college during or at the end of the freshman year, either voluntarily or by request.

Altogether a little more than 8 percent of the Scholars (35 out of the 420 total) withdrew during or at the end of their first college year. Half of the withdrawals (18) were because of poor adjustment, which showed up most often in low marks. Disciplinary infractions and poor mental health were relatively minor causes. The other half (17) left college not primarily because of any failure to adjust, but for a variety of reasons such as to transfer to another institution, to take a job, or because of personal or family problems.

Table X

WITHDRAWALS FROM COLLEGE: SCHOLARS AND ALL FRESHMEN

Reasons for Withdrawal	421 Fund Scholars All Institutions		239 Fund Scholars 7 Institutions		Approx. 3018 Freshmen 7 Institutions	
	No.	Percent	No.	Percent	No.	Percent
a. Unsuccessful Adjustment:						
Low Marks	12	2.9	10	4.1	161	5.3
Disciplinary	4	0.9	1	0.4	8	0.3
Poor Mental Health	2	0.5	1	0.4	10	0.4
Sub-Totals	18	4.3	12	4.9	179	6.0
b. Other Reasons:						
Personal & Family Problems	8	1.9	6	2.5	25	0.8
Poor Physical Health	1	0.2	1	0.4	14	0.5
Other or Unknown	8	1.9	6	2.5	130	4.3
Sub-Totals	17	4.0	13	5.4	169	5.6
Totals	35	8.3	25	10.3	348	11.6

For details see Appendix Table XI

Three institutions — Goucher, Utah and Wisconsin — had no withdrawals whatever. (See Appendix Table XI.) The highest withdrawals percentagewise were at Shimer (10 out of 34), Yale (6 out of 52), and Chicago (7 out of 60). Shimer presents a somewhat special case because of its selection of a cross-section of Scholars. All of its withdrawals were voluntary; three transferred to the University of Chicago, a few encountered family problems, and two left because of low marks.

Information from seven institutions attended by 239 of the Scholars permits a comparison of withdrawals with the freshman class as a whole. Table X shows that the Scholars had a somewhat higher "survival rate" than their class as a whole. For these institutions combined 11.6% of the whole freshman class withdrew against 10.3% of the Scholars. Withdrawals due to unsuccessful adjustment represented 6% of the whole class and 4.9% of the Scholars, with "low marks" the the major stated reason in both cases. Departures for "other reasons" represented 5.4% and 5.6% for the Scholars and the total class, respectively. The inference is that a higher proportion of the Scholars than of first year students generally made a successful adjustment to college life, at least as measured by the "survival" figures.

Observations of College Officials

UNDOUBTEDLY the most substantial and balanced evidence concerning the academic performance and the social and emotional adjustment of the 1951 Fund Scholars in their first year of college life is provided by the experienced college administrators, faculty members, guidance officers, psychologists and similar staff members who observed them closely and conscientiously throughout the year. The judgments of these observers are reflected in the following excerpts from year-end reports submitted to the Fund by the 11 colleges and universities. It should be emphasized that

these observations are based only upon the limited experience of one year and in no case should be regarded as an expression of final conclusions about the experiment as a whole.

University of Chicago

"The College of the University of Chicago has had more than twelve years of experience in the instruction of young students who have not completed high school. Its faculty has learned to respect the abilities of many young men and women of the age of the Pre-Induction Scholars. We expected that the performance of the Scholars would be good. As a group they have more than met our expectations."

"There is no evident difference between the students who had completed two years of high school and those who had completed three. The four high school graduates appear to have been unhappy selections."

"Our previous experience has shown that the younger students adjust to the social environment quite as readily as the high school graduates. It will be recognized, of course, that the presence of a large number of younger students in college must inevitably contribute to shaping the environment; and a reasonable appraisal of social adjustment will take into account the impact of this group upon the traditional pattern of college life. We shall have to ask, not simply how well younger students can adjust to a traditional pattern, but to what extent traditional patterns are modified by their presence."

"There have been problem cases among the Scholars, though not in excess of a normal expectancy."

". . . it appears that the social adjustment of the Scholars, insofar as it can be measured by survival, is as satisfactory as or better than that of the entire student body. Survival is not the only measure of proper adjustment."

Columbia University

"It appears that a difference in age had no identifiable influence on the scholastic results attained by the group. However, so far as we can ascertain from results to date, the completion of four years of secondary school education appears to have been an advantage."

"Again, reference to the basic data does not reveal that personal adjustment rests heavily on the factors of age, years of schooling, etc. . . . I should report that there is a very high correlation between success in studies and success in personal growth and adjustment."

". . . taking into account both scholastic accomplishment and personal qualities such as maturity, balance and adaptability, it seems to me that . . . twenty-eight of our group have attained real success in their year's experience, fourteen have made satisfactory accomplishment, and nine have fallen short. Of these nine, four had completed their full four years of preparation, and five had not. Of the latter five, three would probably have been better off to have delayed their entrance into college for a year. Two seem to have failed because of personality weaknesses which one additional year of maturity or schooling would probably not have corrected."

"The staff seems to have found the Pre-Induction group to be about the same as the rest of the freshman class, except of course that the keenness of so many of them has been noticeable and welcome in a good many classrooms. The top group comprises as able students as any college is likely to have."

"It is evident, I think, that the group as a whole has been warmly received in the College, and that they have not only benefited from the opportunity but, with a few exceptions, have made a worthwhile contribution."

FISK UNIVERSITY

"The achievement of the students is on the whole most encouraging. With the exception of a few particularly severe attacks of spring fever, the students have been alert and enthusiastic and have met with good spirit much heavier academic demands than they had known before. They have begun to learn new habits of mental discipline and to develop new standards of intellectual stamina."

"We have seen enough already of the progress and achievement of superior students to justify our conviction that many students can accomplish far more in the environment of the Basic College than they could accomplish in their high schools. There is already evidence to

confirm our belief that a fair number can accelerate, saving time and also doing a higher quality of work than they would do without the opportunities and the competitive stimulus of the Basic College."

Goucher College

"At the close of the academic year 1951-52, certain observations can be made with respect to the progress of the experiment. The academic achievement of the Scholars has been high although there has been a tendency for it to fall slightly during the course of the year . . . the guidance officers of the Scholars are well satisfied with the progress these students have made towards achieving a more mature outlook."

"According to this measure, the Scholars have done as well, if not somewhat better, than the members of the Comparison Group in achieving a mature outlook respecting their college work."

"In examining the evidence regarding the emotional adjustment of the Scholars, it is difficult to draw any hard and fast conclusions. The incidence of maladjustment is probably no higher than for a group of freshmen chosen at random. But final judgment should be reserved until more evidence is in."

"In evaluating the social adjustment made by these students no significant differences were found between the two groups excepting in 'adjustment to the opposite sex.' Here a large number of the Scholars were characterized as being as yet uninterested in forming friendships with men. The youth of Scholars is not a deterrent to participation in extra-curricular activities. On the contrary, they participated fully as much, if not more, than the Comparison Group."

"A number of emotional problems developed among the Scholars but only two of such intensity as to be of serious concern. It is difficult to determine whether the maladjustments exhibited by these two students could be in any way attributed to the experimental program or were aggravated by it. The Comparison Group had a slightly poorer record than the Scholar Group in this respect.

"The Scholars themselves feel that the program this year has been a success."

LAFAYETTE COLLEGE

"So far as scholastic achievement is concerned, the most noteworthy aspect of the program, aside from the fact that most of these students have obviously succeeded quite well in doing college work, is the rate of improvement which they have shown since the confused weeks of the early fall."

"They seem to have developed an aggressiveness which compares favorably with the attitude of their classmates. In order to choose their sophomore classes, for example, many of them actually wrote to the deans of graduate schools to find out for themselves exactly what was required. Having been caught once in what was for them an unexpected and confusing experience, they were determined at all times to know the score. On the whole, their adjustment has been surprisingly good."

UNIVERSITY OF LOUISVILLE

"Since 1934 the University of Louisville has had special permission from the Southern Association of Colleges and Secondary Schools to admit each year to the University on an experimental basis a limited number of students of superior ability who have completed at least three years of high school work.

"Conclusions reached in a thorough study of the records of these experimental students from 1934 to 1941 are substantiated by experiences of this past year's program of pre-induction scholarship students. In general, experience in these programs lends support to the thesis that there may be fallacies in the existing practices in which the assumption is that the educational process is best measured in units of time. This conclusion is reached in view of the following observations:

1. Selected students who have completed only three years of high school can achieve better academic records in the freshman year than the average students who enter the University after four years of high school study.

2. Selected students, with only three years of high school work, have done as well in their first year of college as a control group of high school graduates who are of comparable superior quality.

3. By their records after a year's study the pre-induction scholar-

ship students have verified their abilities as indicated by their qualifying examinations.

4. The Scholars are vital, self-reliant people; they are independent in thought and in action; they are interested in rich and substantial programs of study; they become active participants in normal college student functions.

5. In social adjustment and general behavior, as observed by teachers and campus associates, there seem to be no marked differences between the Scholars and other students."

"In scholastic measurements, the Scholars have equalled or surpassed the control students, and since both groups are superior samples of the student body, it is to be expected that their scholastic standings would be higher than the averages of the male students in the freshman class."

"The special adviser reported that conferences with these students, on the whole, were encouraging experiences. It was further reported that all of the scholarship holders recognized and appreciated the special opportunities that were extended to them. They were enthusiastic in their plans to interest their friends in becoming candidates for the scholarships as the program continues."

OBERLIN COLLEGE

"It appears that perhaps 16 of the 25 made a good social and emotional adjustment; 6 made a reasonably good one; and three had rather poor adjustment. It does not appear that the peculiar situation these students found themselves in, in terms of age and high school preparation, led to serious academic or emotional problems. Several of the boys did feel handicapped in sports because of their age."

"The academic performance of the scholarship students was distinctly superior to the average of the freshman class as a whole. There were relatively few situations in which lack of preparation or ability led to scholastic difficulties. . . . These two academic casualties were proportionately no greater than in the rest of the freshman class."

SHIMER COLLEGE

"Since admission of this younger age group is normal in the Shimer

setup, the adjustment of the individuals admitted under the Fund for the Advancement of Education was greatly facilitated. These scholarship holders were just as active in extra-class activities as were their fellows of a similar age. . . . The social adjustment of the Special students was essentially that of other new students."

"These comparisons between the median average grades received by students holding Special Grants and other groups of students registered in the College would indicate that for the most part the holders of Special Grants are performing at approximately the same level as their fellow students. These comparisons further indicate that their achievement is essentially in accord with the level of expectation indicated by total scores on the ACE psychological tests."

UNIVERSITY OF UTAH

"The above data would seem to indicate the group as a whole has been successful academically."

"The group began the fall quarter in a mood of great self-confidence and overall exuberance. The students told each other that this was going to be a tough program, but no one doubted his ability to achieve. There was a strong competitive spirit. As the quarter progressed, definite signs of strain began to appear, and the students became less confident. They attempted to reassure each other that 'all freshmen find the first quarter very difficult.' During the second quarter the stresses increased. Parents of some of the students telephoned or visited the counselor. They reported that some students were very discouraged and that several of the girls had 'cried all night.' From students came reports that several of the out-of-town boys were 'homesick.' The counselor began to do some rather intensive work with students who came for interviews. In the spring quarter there appeared to be a great release of tension in the group as a whole, and frequent checks showed favorable reports that the students were again enjoying the program."

"It would appear to the counselor that with the resolution of the difficulties in the mathematics class, the adjustment of the group as a whole is very good. About half of the students were interviewed briefly just prior to the end of the spring quarter and appeared to be in very good spirits. One girl seemed to express the general feeling when she said,

'It was a very difficult year, but was undoubtedly worth it.' While there are two students who may become scholastic problems, they certainly have demonstrated their ability to succeed in the regular University program. No one has discontinued the program. One student who had been appointed to Annapolis will probably resign his appointment in order to complete the second year of the program. As of this date, it would appear that all forty students will return for the second year."

University of Wisconsin

"Most of the boys are delighted at the opportunity they have been given; none have dropped, and all propose to continue. As far as the adviser has been able to find out, the faculty are delighted to have their classes enlivened by these boys and their fellows enjoy their company. But the most successful are those whose individuality is the strongest; and we feel emphatically that every effort should be made to avoid treating them as a separate group."

"Of course, there have been boys who presented problems. . . . There is a strong chance that they would have had trouble if they had remained in high school."

"Size was more important to them than age in making it possible for them to join in with their classmates as equals."

"It has been most satisfying to observe the way the boys handled their finances."

Yale College

"Tentative evidence leads me to estimate that the Scholars were somewhat superior academically to the Control Group, but socially showed their relative immaturity. There can be no question concerning the success of the social adjustment of most of the Scholars, though there were a few failures. . . In general, the Scholars passed during the year from a condition of conspicuous oddity (in spite of our efforts to protect them) to a condition where they were admirably indistinguishable from their class-mates."

Future Plans for the Program and Its Evaluation

THIS INTERIM REPORT has described only the first group of 420 Fund Scholars and their performance in their first year of college (1951-52). Another 429 Scholars entered the 12 participating institutions in the Autumn of 1952. Arrangements are being worked out for additional groups to enter in 1953 and 1954, though the number is still uncertain. The eventual total number should certainly be large enough, however, to provide statistically significant evidence on a number of basic educational policy questions.

An evaluation plan has been devised with the cooperation of Educational Testing Service at Princeton, New Jersey, under which detailed and uniform records will be maintained on each Scholar throughout his college career. Appropriate records will also be kept on all "matching students" in Comparison Groups and on the whole college classes of which Scholars are members.

On the basis of such extensive data, it should be possible to achieve a soundly based comparative analysis of the performance and adjustment of this large number of Scholars over a period of time in relation to that of other college students.

No one can say with assurance what pattern of analytical results will eventually flow from this larger sample and longer experience. All that can be said on the basis of the limited evidence to date is that, on the whole, the initial phase of the Early Admission to College experiment has produced decidedly encouraging results. This not only warrants a continuation of the experiment but should give educators throughout the nation further cause to rethink the relationship of our schools and colleges.

APPENDIX

Table I

APTITUDE AND ACHIEVEMENT TESTS USED IN THE SELECTION OF 1951 FUND SCHOLARS

A. *Aptitude Tests*	
CEEB Tests of Scholastic Aptitude:	Chicago Columbia Goucher Lafayette Wisconsin Yale
ACE Psychological Examination:	Fisk Goucher Lafayette
Ohio State Psychological Examination:	Oberlin
University of Chicago Entrance Examination: (including ACE Psychological)	Shimer
B. *Achievement Tests*	
CEEB Tests of Scholastic Achievement:	Goucher Wisconsin Yale
Cooperative English Test, Higher Level:	Fisk
Cooperative General Achievement Tests:	Utah
Iowa High School Content Examination:	Louisville

Table II

DISTRIBUTION OF 1951 FUND SCHOLARS BY: A. SIZE OF COMMUNITY[1]

	Chicago	Columbia	Fisk	Goucher	Lafayette
No. of Scholars	60	51	28	19	30
A. Size of Community:[1]					
Urban	59	50	28	15	26
Rural	1	1	0	4	4
B. Age at College Entrance:					
17-0 and Over	—	—	—	—	—
16-6 thru 16-11	—	—	—	—	—
16-0 thru 16-5	40	48	7	13	22
15-6 thru 15-11	12	3	14	2	5
15-0 thru 15-5	4	—	4	4	2
14-6 thru 14-11	3	—	3	—	1
Under 14-6	1	—	—	—	—
C. Sex:					
Men	60	51	15	—	30
Women	—	—	13	19	—
D. Years of Schooling Completed:					
Twelve	4	22	—	—	—
Eleven	21	29	5	8	8
Ten	35	—	23	11	22

[1] The U. S. Census definitions of "urban" and "rural" are substantially followed. With certain exceptions, "rural" is any community of less than 2,500 population.

B. AGE AT COLLEGE ENTRANCE; C. SEX; D. YEARS OF SCHOOLING COMPLETED

Louisville	Oberlin	Shimer	Utah	Wisconsin	Yale	Total	Percent of Total
29	25	34	40	52	52	420	
27	24	29	38	49	45	390	92.85
2	1	5	2	3	7	30	7.15
18	—	—	29	—	—	47	11.11
10	—	6	9	—	—	25	5.95
1	23	15	2	28	39	238	56.67
—	2	11	—	24	12	85	20.24
—	—	1	—	—	1	16	3.80
—	—	—	—	—	—	7	1.67
—	—	1	—	—	—	2	.47
29	14	19	26	52	52	348	82.85
—	11	15	14	—	—	72	17.15
—	1	—	—	3	7	37	8.81
29	9	7	40	27	26	209	49.76
—	15	27	—	22	19	174	41.43

Table III

DISTRIBUTION OF SCHOLASTIC APTITUDE SCORES BY 1951 FUND SCHOLARS ON TESTS TAKEN BEFORE OR DURING THEIR FIRST COLLEGE YEAR

		Institutions and Number of Scholars						
A.	Scaled Scores on CEEB, Verbal	Chicago 59	Columbia 51	Goucher 19	Lafayette 12	Wisconsin 52	Yale 52	Total 245
	751 & over	2	0	0	0	1	0	3
	701-750	11	4	1	0	3	5	24
	651-700	16	5	5	0	9	13	48
	601-650	11	16	7	2	8	13	57
	551-600	12	11	3	1	20	11	58
	501-550	4	9	2	5	7	9	36
	451-500	3	3	1	2	2	1	12
	401-450	0	2	0	0	2	0	4
	351-400	0	1	0	2	0	0	3
B.	Scaled Scores on CEEB, Math.							
	751 & over	9	6	0	1	4	9	29
	701-750	14	11	0	0	11	9	45
	651-700	9	9	3	0	10	10	41
	601-650	15	9	3	2	8	6	43
	551-600	7	6	8	5	11	14	51
	501-550	3	6	1	4	6	4	24
	451-500	2	4	3	0	2	0	11
	401-450	0	0	1	0	0	0	1
	351-400	0	0	0	0	0	0	0

C.	National Percentile Score on ACE Psych. Exam*	Chicago 60	Fisk 28	Goucher 19	Lafayette 18	Louisville 26	Shimer 34	Utah 40	Wisconsin 52	Total 277
	91 & over	46	0	13	4	5	9	8	26	111
	81-90	11	0	3	7	2	7	7	14	51
	71-80	3	4	0	3	2	8	8	4	32
	61-70	0	4	3	2	2	2	3	3	19
	51-60	0	3	0	1	7	2	8	2	23
	41-50	0	4	0	0	2	1	5	2	14
	31-40	0	8	0	1	2	2	0	1	14
	21-30	0	5	0	0	3	1	1	0	10
	11-20	0	0	0	0	1	1	0	0	2
	10 & lower	0	0	0	0	0	1	0	0	1

* Based upon nation-wide scores for freshmen entering four-year colleges.

Table IV

DISTRIBUTION OF 1951 FUND SCHOLARS BY HOME STATE

STATE:	CHICAGO	COLUMBIA	FISK	GOUCHER	LAFAYETTE	LOUISVILLE	OBERLIN	SHIMER	UTAH	WISCONSIN	YALE	*Total*
Alabama	2		2									4
Arizona							1					1
Arkansas												0
California	2	1		1			1	2		5	1	13
Colorado				1						1		2
Connecticut	1	2			1		1				5	10
Delaware												0
Florida	1							1				2
Georgia		1	2								1	4
Idaho												0
Illinois	13		2					21		3	4	43
Indiana			2					1				3
Iowa								2				2
Kansas	2											2
Kentucky						28						28
Louisiana												0
Maine											1	1
Maryland	1	1	2	1							2	7
Massachusetts	1	2		1			3				5	12
Michigan	1		3					1		2	3	10
Minnesota								1				1
Mississippi												0
Missouri												0
Montana	1											1
Nebraska	3											3
Nevada												0

Table IV (Continued)

DISTRIBUTION OF 1951 FUND SCHOLARS BY HOME STATE

STATE:	CHICAGO	COLUMBIA	FISK	GOUCHER	LAFAYETTE	LOUISVILLE	OBERLIN	SHIMER	UTAH	WISCONSIN	YALE	*Total*
New Hampshire											1	1
New Jersey	5	2	1	1	12		3	1		6	4	35
New Mexico												0
New York	16	38	1	11	2		4	3		27	9	111
North Carolina												0
North Dakota										1		1
Ohio	2		2				12			1	3	20
Oklahoma										1	1	2
Oregon	1										1	2
Pennsylvania	5	3	2	1	15					1	3	30
Rhode Island	1										1	2
South Carolina						1					2	3
South Dakota												0
Tennessee	1		3									4
Texas				1								1
Utah									40	1		41
Vermont								1			1	2
Virginia		1	3	1							3	8
Washington										1		1
West Virginia												0
Wisconsin	1									2	1	4
Wyoming												0
District of Columbia			3									3
Total No. of Scholars:	60	51	28	19	30	29	25	34	40	52	52	420

Table V

ANNUAL FAMILY INCOME OF 1951 FUND SCHOLARS

Inst.	No. of Scholars	$9,000 and Over	$6,000-$8,999	$3,000-$5,999	Under $3,000	Unknown	Total
Chicago	60	12	9	30	5	4	60
Columbia	51	1	12	18	4	16	51
Fisk	28	2	1	16	9	0	28
Goucher	19	1	3	2	1	12	19
Lafayette	30	4	4	16	3	3	30
Louisville	29	1	3	22	2	1	29
Oberlin	25	4	6	11	1	3	25
Shimer	34	4	10	15	4	1	34
Utah	40					40*	40
Wisconsin	52	12	8	23	6	3	52
Yale	52	16	18	16	2	0	52
Total	420	57	74	169	37	83	420
Total Percent		13.57	17.62	40.24	8.81	19.76	100.00

* Utah does not have this information.

Table VI

BREADWINNING PARENT OCCUPATIONS

	Chicago	Columbia	Fisk	Goucher	Lafayette
No. of Scholars	60	51	28	19	30
Professional & Semi-Professional					
Teachers, Librarians & non-Science Research workers	12	4	3	2	6
Architects, Engineers, Chemists, non-Medical Researchers & Technicians	8	2	1	7	0
Doctors, Dentists, Pharmacists, Medical Researchers & Technicians	2	9	1	0	2
Lawyers & Judges	1	1	1	2	1
Clergymen	0	0	0	0	1
News Reporters & Editors	1	0	0	1	0
Artists, Musicians & Writers	0	3	0	0	0
Business					
Advertising, Sales, Merchandising, Insurance, Purchasing, Personnel & Public Relations Employees	13	10	3	4	3
Bankers, Accountants and Bookkeepers	5	2	0	3	1
Executives, Proprietors, & Firm Managers	2	4	0	0	5
Foremen, Inspectors, Skilled Labor & Clerical Personnel	2	0	8	0	8
Unskilled Labor & Service Trades Workers	1	11	3	0	2
Local, State & Federal Government Service Workers	4	3	2	0	1
Farmers	0	1	0	0	0
Housewives	0	0	5	0	0
Unknown or Deceased	9	1	1	0	0
Totals	60	51	28	19	30

Louisville 29	Oberlin 25	Shimer 34	Utah 40	Wisconsin 52	Yale 52	Total 420	Total %
1	10	4	7	7	9	65	15.48
3	2	5	5	5	9	47	11.19
1	1	1	1	8	8	34	8.09
0	1	1	0	3	2	13	3.10
2	0	1	0	2	1	7	1.67
1	0	1	1	0	1	6	1.43
0	0	1	0	0	0	4	.95
5	4	6	8	13	6	75	17.86
2	0	1	1	1	5	21	5.00
4	2	3	2	11	0	33	7.86
5	4	5	1	0	0	33	7.86
3	1	2	7	0	4	34	8.09
2	0	0	2	2	5	21	5.00
0	0	0	0	0	0	1	.24
0	0	1	0	0	2	8	1.90
0	0	2	5	0	0	18	4.28
29	25	34	40	52	52	420	100.00

Table VII

AMOUNT OF SCHOOLING COMPLETED BY

No. of Scholars	Chicago 60	Columbia 51	Fisk 28	Goucher 19	Lafayette 30
Highest Level of Schooling Completed:					
Did graduate work:	[1]				
Total Fathers	n.a.	10	4	8	3
Total Mothers	n.a.	n.a.	1	4	2
Both Parents	n.a.	n.a.	1	3	n.a.
Has Bachelor's Degree:					
Total Fathers	26	15	2	4	11
Total Mothers	16	14	7	6	11
Both Parents	9	n.a.	1	2	n.a.
Graduated from Secondary School:					
Total Fathers	22	6	10	6	8
Total Mothers	33	16	10	8	9
Both Parents	10	n.a.	5	3	n.a.
Did not complete Secondary School:					
Total Fathers	12	n.a.	8	1	8
Total Mothers	9	n.a.	9	1	8
Both Parents	7	n.a.	4	0	n.a.
Unknown:					
Total Fathers	0	20	4	0	0
Total Mothers	2	21	1	0	0
Both Parents	0	n.a.	1	0	0

[1] Data on graduate work not available; hence, such cases are included in "Has Bachelor's Degree" category.

PARENTS OF THE 1951 FUND SCHOLARS

Louisville	Oberlin	Shimer	Utah	Wisconsin	Yale	Total
29	25	34	40	52	52	420
		1		1		
3	8	n.a.	7	23	19	85
0	2	n.a.	2	1	4	16
0	1	n.a.	3	2	2	12
8	12	13	7	8	15	121
7	12	10	7	14	13	117
n.a.	7	9	2	2	5	37
11	1	10	14	11	11	110
14	6	15	20	32	29	192
n.a.	0	2	4	3	6	33
7	0	n.a.	9	10	1	56
8	0	n.a.	5	5	0	45
n.a.	0	n.a.	3	4	0	18
0	4	11	3	0	6	48
0	5	9	6	0	6	50
0	3	n.a.	1	0	0	5

Table VIII

INITIAL CAREER PREFERENCES OF 1951 SCHOLARS

	Chicago	Columbia	Fisk	Goucher	Lafayette	Louisville	Oberlin	Shimer	Utah	Wisconsin	Yale	*Total*
Number of Scholars	60	51	28	19	30	29	25	34	40	52	52	420
Professional & Semi-Professional												
Architects										1		1
Engineers	3	4	2		13	6	2	1	3	3	6	43
Chemists		1	2	1	1	2	1	1	3			12
Physical Science	17	2	4		2	3	4	2		8	7	49
Non-Medical Technicians								1				1
Mathematics	3	1		2			1	1		1		9
Doctors & Dentists		20	7	3		4	5	3	3	9	6	60
Med. Technicians	10		1									11
Actors				2								2
Musicians			2			2	1	1				6
Painters								3				3
Writers						1	3					4
Journalists	2		2	2			2	2		6		16
Religious Workers	5	1				1	1				1	9
Lawyers	6	3	2	1		3		2	1	3	5	26
Anthropologists	1											1
Social Workers			1	1			1					3
Teachers	1		2	3		2	2	9			1	20
Librarians			2	1						2		5
Psychologists	2											2
Political Sci.	1	1										2
History and Hist. Research						1						1
Business, General	1	2		1		1		1	3	1	1	11
Local, State & Federal Government Service				2			1	1			3	7
Armed Services							1				3	4
Unspecified, Undecided, or Unknown	8	16			14	3		5	18	18	19	101
Other			1					1	9			11
Totals	60	51	28	19	30	29	25	34	40	52	52	420

Table IX

INITIAL PREFERENCE FOR ACADEMIC MAJOR OF 1951 SCHOLARS*

	Chicago	Fisk	Goucher	Louis-ville	Utah	Yale	*Total*
Number of Scholars	60	28	19	29	40	52	420
Natural Sciences:							
Physical Science	17	0	1	3	1	4	26
Pre-Med	10	4	2	0	3	0	19
Engineering	3	0	0	4	3	1	11
Chemistry	0	2	2	7	3	2	16
Mathematics	3	4	3	1	0	6	17
Zoology	0	7	0	2	0	0	9
Geology	0	0	0	0	0	1	1
Social Sciences:							
Pre-Law	6	1	1	2	1	0	11
Political Science	1	0	1	1	1	4	8
Psychology	2	0	0	0	0	5	7
History	0	1	0	2	0	8	11
Sociology	0	1	1	0	0	0	2
Anthropology	1	0	0	0	0	0	1
Education	1	0	3	0	0	0	4
Humanities:							
Religion and Pre-Theological	5	0	0	0	0	0	5
English	0	2	0	3	2	0	7
Journalism	2	1	2	0	0	0	5
Modern Language	0	1	2	1	1	2	7
Music	0	2	0	1	1	0	4
Art	0	0	1	0	1	2	4
Philosophy	0	0	0	0	0	2	2
Drama	0	0	0	0	0	1	1
Economics, Business and Secretarial	0	0	0	0	4	6	10
Other	0	2	0	0	1	2	5
Undecided or Unknown	8	0	0	2	18	6	34
Totals	59	28	19	29	40	52	227

* The data reflect expressed preferences of the Scholars for a particular academic major to be pursued later in college. Those institutions not represented above either do not employ a "major" system or do not request this information from students until later in their college careers.

Table X

END-OF-YEAR TOTAL GRADE POINT AVERAGES OF 1951 FUND

Pt. Value of "C"	Chicago 2.00		Columbia 8.00		Goucher 3.00		Lafayette 75.00		Louisville 1.00	
	No.	GPA	No.	GPA	No.	GPA	No.	GPA	No.	GPA
Fund Scholars, Previous Schooling:										
10 years	34	2.90	0	0.00	11	3.47	22	75.71	0	0.00
11 years	21	2.85	29	11.15	8	3.72	8	78.50	24[1]	1.75
12 years	4	2.23	22	10.89	0	0.00	0	0.00	0	0.00
all men scholars	59	2.66	51	11.06	0	0.00	30	76.48	24[1]	1.75
all women scholars	0	0.00	0	0.00	19	3.61	0	0.00	0	0.00
Total Scholargr.	59	2.66	51	11.06	19	3.61	30	76.48	24[1]	1.75
Comparison Group of Secondary School graduates:										
men	na	2.49	na	10.78	0	0.00	38	77.66	18	1.58
women	na	2.51	na	na	na	3.39	0	00.00	6	2.19
Total	na	2.50	na	10.78	—	3.39	38	77.66	24	1.71
Entire Freshman Class:										
men	na	na	na	10.41	0	0.00	0	72.44	na	1.36
women	na	na	na	na	150	3.19	0	0.00	na	1.57
Total	na	na	na	10.41	150	3.19	0	72.44	na	1.43
Entire Student Body:	na	2.1	na	10.60	na	na	na	75.92	na	na

[1] This number includes only Scholars registered in the College of Arts and Sciences.

SCHOLARS AND OTHER STUDENT GROUPS IN TEN INSTITUTIONS

Oberlin 0.00		Shimer 2.00		Utah 2.00		Wisconsin 1.00		Yale 75.00		Total No. of
No.	GPA	No.	GPA	No.	GPA	No.	GPA	No.	GPA	People
15	1.7	27	1.75md	0	0.00	22	2.18	19	75.30	150
9	2.7	7	2.1 md	40	2.86	27	2.40	26	79.80	199
1	0.9	0	0.0	0	0.00	3	1.91	7	79.18	37
14	1.6	19	2.1 md	26	2.76	52	2.30	52	78.21	327
11	2.4	15	1.75md	14	2.97	0	0.00	0	0.00	59
25	1.9	34	1.75md	40	2.86	52	2.30	52	78.21	386
na	1.5	na	na	na	na	na	na	52	78.45	na
na	1.8	na	na	na	na	na	na	0	0.00	na
na	1.6	na	2.0	na	2.65	na	1.85	52	78.45	na
na	0.9	na	na	na	2.21	na	1.17	1169	76.25	na
na	1.2	na	na	na	2.60	na	na	0	0.00	na
na	1.1	na	na	na	2.35	na	na	1169	76.25	na
na	na	na	na	na	na	na	1.64	na	77.9	na

Table XI

A. *Unsuccessful Adjustment:*	NUMBER AND PERCENT OF WITHDRAWALS FROM COLLEGE: Chicago No.	%	Columbia No.	%	Fisk No.	%	Goucher No.	%	Lafayette No.	%
1. *Low Marks:*										
a. Fund Scholars	0	0.00	2	4.00	0	0.00	0	0.00	2	6.66
b. Freshmen	n.a.	n.a.	9	1.40	12	8.40	1	0.07	65	17.19
2. *Disciplinary:*										
a. Fund Scholars	3	5.00	0	0.00	0	0.00	0	0.00	0	0.00
b. Freshmen	n.a.	n.a.	1	0.15	1	0.70	1	0.67	0	0.00
3. *Poor Mental Health:*										
a. Fund Scholars	1	1.66	0	0.00	0	0.00	0	0.00	0	0.00
b. Freshmen	n.a.	n.a.	0	0.00	2	1.40	0	0.00	0	0.00
4. *Sub Totals:*										
a. Fund Scholars	4	6.66	2	4.00	0	0.00	0	0.00	2	6.66
b. Freshmen	n.a.	n.a.	10	1.55	15	10.50	2	1.33	65	17.19
B. *Other Reasons*										
1. *Personal and Family Problems:*										
a. Fund Scholars	2	2.33	0	0.00	0	0.00	0	0.00	0	0.00
b. Freshmen	n.a.	n.a.	0	0.00	0	0.00	3	2.00	6	1.59
2. *Poor Physical Health:*										
a. Fund Scholars	0	0.00	0	0.00	1	3.57	0	0.00	0	0.00
b. Freshmen	n.a.	n.a.	0	0.00	3	2.10	6	4.00	2	0.53
3. *Other or Unknown:*										
a. Fund Scholars	1	1.66	0	0.00	1	3.57	0	0.00	1	3.33
b. Freshmen	n.a.	n.a.	40	6.00	19	13.40	20	13.33	24	6.34
4. *Sub Totals:*										
a. Fund Scholars	3	4.00	0	0.00	2	7.14	0	0.00	1	3.33
b. Freshmen	n.a.	n.a.	40	6.00	22	15.50	29	19.33	32	8.46
C. *TOTALS:*										
a. Fund Scholars	7	10.66	2	4.00	2	7.14	0	0.00	3	10.00
b. Freshmen	n.a.	n.a.	40	6.00	37	26.00	31	20.67	97	25.65

SCHOLARS AND FRESHMEN BY INSTITUTION

Louisville		Oberlin		Shimer		Utah		Wisconsin		Yale		Total[1]	
No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
2	6.66	1	4.00	2	5.88	0	0.00	0	0.00	3	5.77	12	2.9
n.a.	na.	39	9.05	7	8.54	n.a.	n.a.	n.a.	n.a.	28	2.39	161	5.3
0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	1.92	4	0.9
n.a.	n.a.	1	0.23	1	1.22	n.a.	n.a.	n.a.	n.a.	3	0.26	8	0.3
0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	1.92	2	0.5
n.a.	n.a.	0	0.00	0	0.00	n.a.	n.a.	n.a.	n.a.	8	0.69	10	0.4
2	6.66	1	4.00	2	5.88	0	0.00	0	0.00	5	9.61	18	4.3
n.a.	n.a.	40	9.28	8	9.76	n.a.	n.a.	n.a.	n.a.	39	3.34	179	6.0
0	0.00	1	4.00	4	11.76	0	0.00	0	0.00	1	1.92	8	1.9
n.a.	n.a.	2	0.46	8	9.76	n.a.	n.a.	n.a.	n.a.	6	0.51	25	0.8
0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.2
n.a.	n.a.	1	0.23	1	1.22	n.a.	n.a.	n.a.	n.a.	1	0.09	14	0.5
1	3.33	0	0.00	4	11.76	0	0.00	0	0.00	0	0.00	8	1.9
n.a.	n.a.	9	2.08	9	10.98	n.a.	n.a.	n.a.	n.a.	9	0.77	130	4.3
1	3.33	1	4.00	8	23.52	0	0.00	0	0.00	1	1.92	17	4.0
n.a.	n.a.	12	2.77	18	22.96	n.a.	n.a.	n.a.	n.a.	16	1.37	169	5.6
3	10.00	2	8.00	10	29.40	0	0.00	0	0.00	6	11.53	35	8.3
n.a.	n.a.	52	12.05	26	32.72	n.a.	n.a.	n.a.	n.a.	55	4.71	348	11.6

[1]Percentages based upon 421 Scholars in eleven institutions and approximately 3018 Freshmen in the seven institutions for which such data were available.

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